PHASE I CULTURAL RESOURCES SURVEY

OF 553 ACRES AT HAILE GOLD MINE

LANCASTER AND KERSHAW COUNTIES, SOUTH CAROLINA

March 29, 2012

DRAFT REPORT

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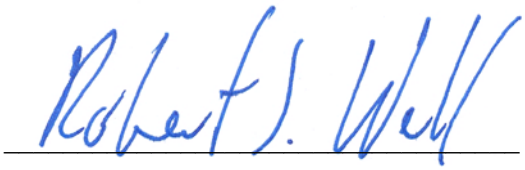

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MANAGEMENT SUMMARY

Background

During the period of November 9 through December 20, 2011, R.S. Webb & Associates conducted a Phase I cultural resources survey of 553-acres (224 hectares) at Haile Gold Mine in Lancaster and Kershaw Counties, South Carolina. These holdings consist of 12 tracts (Tracts A, B, D through J, L, N, and O) located approximately 5.7 kilometers northeast of Kershaw, South Carolina, in an area encompassed by Gold Mine Highway/U.S. 601 to the west, Old Jefferson Highway/State Route (SR) 265 to the north, Ernest Scott Road to the east, and Catawba Road to the south. The study was conducted in compliance with the South Carolina Mining Act (Sections 48-20-20 and 48-20-40, South Carolina Code of Laws), the South Carolina Code of Regulations [Chapter 89-120(c)(4)], and the U.S. Army Corps of Engineers (USACE) Clean Water Act with respect to Section 106 of the National Historic Preservation Act [(NHPA) Public Law 89-665; 80 Stat. 915; 16 U.S.C. 470].

Project Goals and Methods

The goal of the survey was to identify, delineate, and assess the significance of archeological and historical resources located within the Area of Potential Effects (APE) for the project tract (i.e., direct effects within the project area; visual effects within 100 m of the project area boundaries). Criteria used for assessing resource significance and project effects are set in 36 CFR Part 60.4 [National Register of Historic Places (NRHP) eligibility criteria] and 36 CFR Part 800 (project effects). The current report complies with the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (FR 48, No. 190:44728-44737), the *South Carolina Standards and Guidelines for Archaeological Investigations* [South Carolina State Historic Preservation Office (SHPO) 2009], and the *South Carolina Statewide Survey of Historic Properties survey manual* (SHPO 2007).

A literature and records search was conducted prior to the field survey. The field survey included an intensive archeological survey and an architectural resources survey of structures within the APE. The APE for visual effects was based on field evaluations of topography, vegetation, modern intrusions (e.g., modern structures and other recent construction), disturbances and the nature of the proposed mining activities (e.g., large excavations, soil stockpiling, facility construction, etc.). Data analysis included artifact analysis, preparation of State Archeological Sites Forms, site sketch maps, resource/project area photography, and project maps, and tables.

Results

Archeological Survey: Forty seven archeological resources (i.e., 32 archeological sites and 15 isolated finds) were identified during the survey of the 12 study tracts (Table I). Forty five archeological resources contained prehistoric components including: indeterminate prehistoric (n=35); Early Woodland (n=1); Early to Middle Woodland (n=2); Middle Woodland (n=1); Middle to Late Woodland (n=1); Woodland (n=3); and Late Woodland to Protohistoric (n=1). Seven archeological resources contained historic components dating to the following: mid/late 19th to early 20th century (n=1); late 19th to early 20th century (n=1); 19th/20th

century (n=2); late 19th to middle 20th century (n=2); and 20th century (n=1). One of the historic sites is a small 19th to early 20th century family cemetery.

Architectural Survey: The historic resources survey identified 10 previously recorded and three unrecorded historic structures in the project APE (Table II). Three of the previously recorded structures were documented by Jackson (1986) and 10 structures were recently recorded by New South Associates (Adams *et al.* 2011b). The 13 historic structures in the APE are all residences and represent a date range of c.1915 to c.1960.

Table I Archeological Resources Within the Project Area

Archeological Sites*

State Site No.	Field Site No.	Type	Period	NRHP and Management Recommendations
38LA356*	L1	Lithic and Ceramic Scatter	Middle Woodland	Unassessed; Avoidance/Testing in select areas
38LA622/ 641*	A-1	Lithic and Ceramic Scatter; Historic Scatter	Middle to Late Woodland; Late 19th to Early 20th century	Unassessed; Avoidance/Testing in select areas
38LA663*	D-17	Lithic and Ceramic Scatter	Early Woodland	Ineligible; No Further Work
38LA666*	Locus 2	Lithic and Ceramic Scatter; Historic Scatter	Late Woodland to Protohistoric; 20th century	Unassessed; Avoidance/Testing in select areas
38LA666*	Locus 3	Lithic and Ceramic Scatter; Historic Scatter	Indeterminate Prehistoric; Late 19th to Mid 20th century	Unassessed; Avoidance/Testing in select areas
38LA735	D-1	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA736	D-3	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA737	D-4	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA738	D-5	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA739	D-6	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA740	D-7	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA741	D-8	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA742	D-10	Lithic and Ceramic Scatter	Early to Middle Woodland	Unassessed; Avoidance/Testing in select areas
38LA743	D-11	Lithic Scatter	Indeterminate Prehistoric	Unassessed; Avoidance/Testing in select areas
38LA744	D-12	Lithic Scatter	Indeterminate Prehistoric	Unassessed; Avoidance/Testing in select areas
38LA745	D-13	Lithic Scatter	Indeterminate Prehistoric	Unassessed; Avoidance/Testing in select areas
38LA746	D-14	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA747	D-15	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA748	D-16	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA749	D-18	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA750	D-19	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work

State Site No.	Field Site No.	Type	Period	NRHP and Management Recommendations
38LA751	D-20	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA752	D-21	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA753	D-22	Lithic and Ceramic Scatter	Woodland	Unassessed; Avoidance/Testing in select areas
38LA754	G-3	Lithic Scatter; Historic Scatter	Indeterminate Prehistoric; Late 19th to Mid-20th century	Ineligible; No Further Work
38LA755	L2	Lithic and Ceramic Scatter	Early-Middle Woodland	Unassessed; Avoidance/Testing in select areas
38LA756	L4	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA757	L5	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA758	L6	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA759	L7	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA760	L8	Lithic and Ceramic Scatter	Woodland	Unassessed; Avoidance/Testing in select areas
38LA761	N1	Historic Cemetery/Family Plot	Middle-Late 19th to Early 20th century	Ineligible; Preservation & Avoidance; Boundary Delineation
38KE1158	L3	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work

* Site types and periods reflect the findings of the current survey

Isolated Finds

IF#	Artifact	Period	NRHP Recommendation
1A	1 Flake Fragment, rhyolite	Indeterminate Prehistoric	Ineligible
2A	1 Flake Fragment, quartz	Indeterminate Prehistoric	Ineligible
3A	1 Flake Fragment, rhyolite	Indeterminate Prehistoric	Ineligible
4A	1 Caldron fragment, iron	19th/20th century	Ineligible
5A	1Flake Fragment, quartz	Indeterminate Prehistoric	Ineligible
1D	1 Flake Fragment, quartz	Indeterminate Prehistoric	Ineligible
2D	1 Unknown eroded ceramic	Woodland	Ineligible
3D	2 Flake Fragments, rhyolite	Indeterminate Prehistoric	Ineligible
4D	1 Flake Fragment, rhyolite	Indeterminate Prehistoric	Ineligible
5D	2 Flake Fragments, quartz and rhyolite	Indeterminate Prehistoric	Ineligible
6D	1 Stoneware, salt glazed;	19th/20th century	Ineligible
7D	1 Early Stage Biface, rhyolite	Indeterminate Prehistoric	Ineligible
8D	1 Thinning flake, rhyolite	Indeterminate Prehistoric	Ineligible
1L	1 Reduction Flake, rhyolite	Indeterminate Prehistoric	Ineligible
1N	1 Flake Fragment, quartz	Indeterminate Prehistoric	Ineligible

Table II Historic Resources within the Project APE

Resource Number	Address/Tract	Type	Date of Construction	NRHP and Management Recommendation
U/265-0953	800-ft NW of Ernest Scott Road & Tolbert Road/ Tract D-East	Residence	c. 1915	Ineligible; No further work
U/265-0954	7326 Old Jefferson Hwy, SR 265/ Tract D-East	Residence	c. 1920	Ineligible; No further work
U/265-0964	East side Gold Mine Hwy, U.S. Hwy 601/ 0.3 mi south of intersection of U.S. 601 & CR 1723/ Tract B	Residence	c. 1920	Ineligible; No further work
U/265-1105	4752 Ernest Scott Road/ Tract G	Residence	c. 1961	Ineligible; No further work
U/265-1106	4658 Ernest Scott Road/ Tract N and Tract O	Residence	c. 1950	Ineligible; No further work
U/265-1109	4350 Ernest Scott Road/ Tract D-East	Residence	c. 1960	Ineligible; No further work
U/265-1110	4334 Ernest Scott Road/ Tract D-West	Residence	c. 1945	Ineligible; No further work
U/265-1113	4557 U.S. 601/Tract A	Residence	1955	Ineligible; No further work
U/265-1114	4557 U.S. 601/Tract A	Residence	1955	Ineligible; No further work
U/265-1115	4557 U.S. 601/Tract A	Residence	1955	Ineligible; No further work
U/265-1119	7474 Tolbert Lane/ Tract E	Residence	c. 1959	Ineligible; No further work
U/265-1120	4270 Ernest Scott Road/ Tract D-East	Residence	c. 1920	Ineligible; No further work
U/265-1121	4526 Gold Mine Hwy/U.S. 601/ Tract A	Residence	c. 1960	Ineligible; No further work

Recommendations

Archeological Resources with an Unassessed NRHP Eligibility Status: Ten archeological sites 38LA356, 38LA622/641, 38LA666 (Loci 2 and 3), 38LA742, 38LA743, 38LA744, 38LA745, 38LA753, 38LA755, and 38LA760 are unassessed for NRHP eligibility under Criterion (d) in 36 CFR Part 60.4 (Figure 7.1). These archeological sites will require Phase II evaluation to determine if they retain significant information about prehistoric lifeways in the zone between the lower Piedmont and Sandhills physiographic zones of South Carolina. It is recommended that the unassessed sites be tested under a standardized Phase II scope-of-work approved by the South Carolina SHPO

Historic Cemetery with an Ineligible NRHP Eligibility Status Protected under South Carolina Law: Site 38LA761, the small family cemetery, is ineligible for the NRHP, however, it is protected under South Carolina law (South Carolina Code of Laws 16-17-590 and 16-17-600). Preservation and avoidance are recommended. To accomplish this, it is advised that a 10 m buffer be established around the site. If ground disturbing activities are planned within 100 m of the cemetery, it is recommended that a cemetery delineation survey be conducted to clearly define the boundaries. After the delineation it is advised that the outer edge of the buffer zone be marked with highly visible temporary fencing and maintained until project-related activities are completed in the area. Archival research is also recommended in an attempt to determine the origin of the cemetery and to identify possible family members/descendants.

Archeological Resources Recommended Ineligible for the NRHP: Applying NRHP eligibility criteria in 36 CFR Part 60.4, it is recommended that the following archeological sites be determined ineligible for the NRHP under Criterion (d): 38LA663, 38LA735, 38LA736, 38LA7374, 38LA738, 38LA739, 38LA740,

38LA741, 38LA746, 38LA747, 38LA748, 38LA749, 38LA750, 38LA751, 38LA752, 38LA754, 38LA756, 38LA757 38LA758, 38LA759, and 38KE1158. It is further recommended that the 15 isolated finds be considered ineligible for the NRHP under Criterion (d). The justification for these recommendations is that the archeological deposits at these locations have suffered from severe historic disturbances and/or lack the depositional integrity/contextual clarity necessary to provide additional important archeological information. No further work is recommended for these locations.

Historic Resources Recommended Ineligible for the NRHP: Historic Resources U/265-0953,U/265- 0954, U/265-0964, U/265-1105, U/265-1106, U/265-1109, U/265-1110, U/265-1113, U/265-1114, U/265-1115 U/265-1119, U/265-1120, and U/265-1121 are recommended ineligible for the NRHP. These resources lack historic and architectural significance due to unidentifiable or common type and/or modifications that compromise massing and historic fabric. No further work is recommended for these locations.

1.0 INTRODUCTION

1.1 Project Background

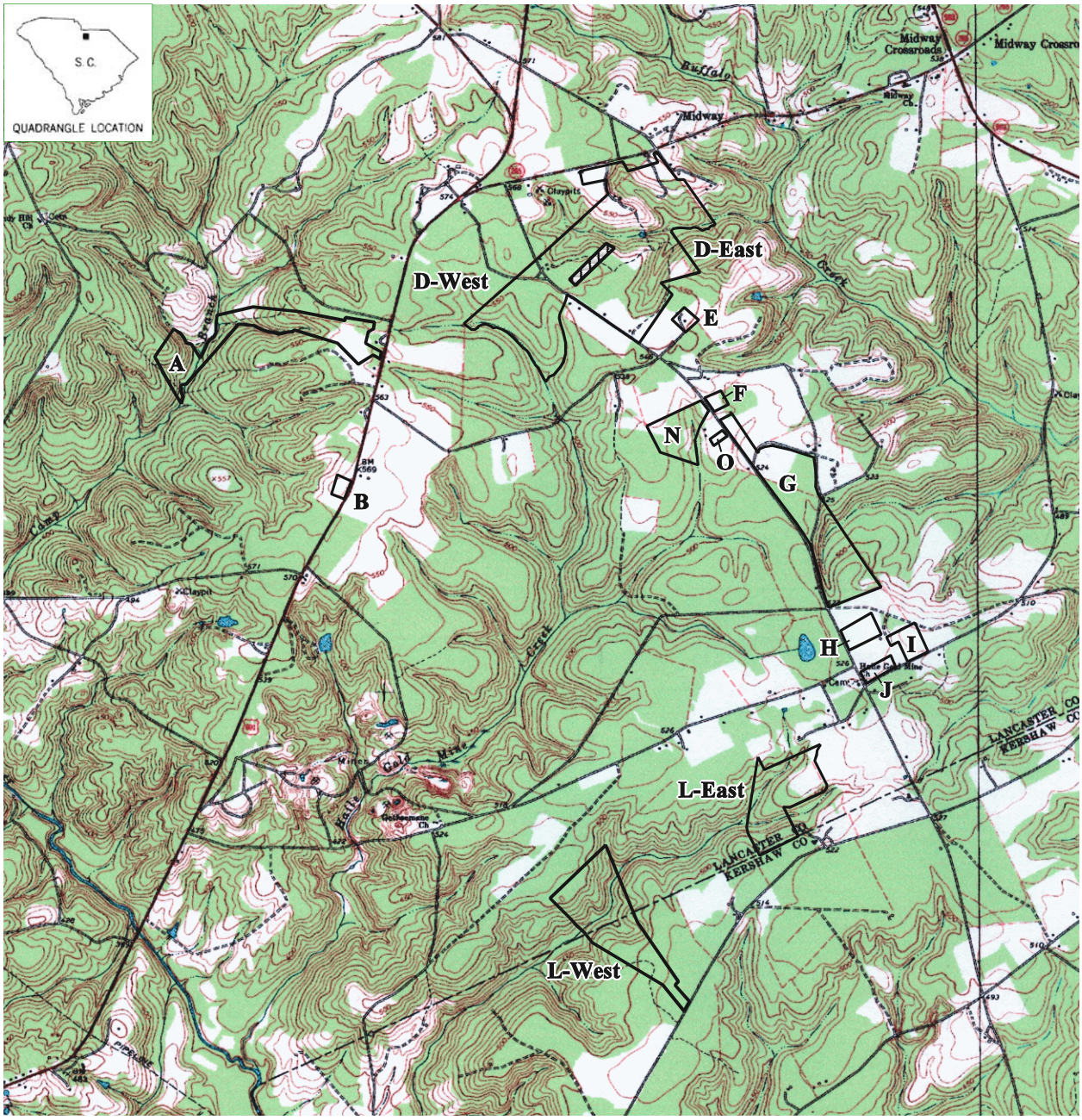
From November 9 through December 20, 2011, R.S. Webb and Associates (RSWA) performed a Phase I cultural resources survey of 553-acres (223 hectares) at Haile Gold Mine for Haile Gold Mine, Inc. in Kershaw, South Carolina (Figure 1.1). Haile Gold Mine, Inc. is applying for a mining permit pursuant to the South Carolina Mining Act (Title 48, Chapter 20, Sections 10-310, South Carolina Code of Laws) and its implementing regulations found in the South Carolina Code of Regulations in Chapter 89-120(c)(4).

The South Carolina Mining Act (Title 48, Chapter 20, Section 20) mandates that no mining may be carried out in South Carolina unless "plans for the mining include reasonable provisions for the protection of the surrounding environment and for the reclamation of the area of land affected by the mining." Applicants must present reclamation plans to the South Carolina Department of Health and Environmental Control's (DHEC) Division of Mining and Solid Waste Management (DMSWM) for approval. The Mining Act (Title 48, Chapter 20, Section 40) mandates that reclamation plans must include "proposed methods to limit significant adverse effects on significant cultural or historic sites." The South Carolina State Historic Preservation Office (SCSHPO) consults with the DMSWM concerning the effects projects requiring mining permits may have on properties listed on or eligible for listing in the National Register of Historic Places (NRHP).

The South Carolina Code of Regulations Chapter 89-120(c)(4) authorizes the DHEC to require surveys of cultural and/or historic resources on a proposed mine site. Information gathered during the survey may be used to "determine provisions which meet the requirements for the protection, relocation, or excavation of significant cultural or historic sites as mining progresses."

At the federal level, this study complies with the U.S. Army Corps of Engineers (USACE) Clean Water Act with respect to Section 106 of the National Historic Preservation Act [(NHPA) Public Law 89-665; 80 Stat. 915; 16 U.S.C. 470].

The goal of the survey was to identify, delineate, and assess the significance of cultural resources located within the Area of Potential Effects (APE) of the 12 study tracts. Criteria used for assessing resource significance and project effects are set in 36 CFR Part 60.4 (NRHP eligibility criteria) and 36 CFR Part 800 (project effects). The study was conducted under guidelines set by the South Carolina SHPO (SHPO 2007, 2009) and the U.S. Secretary of the Interior (Federal Register 1983).



Project Areas
Out Parcel

Map Reference: 7.5 Minute USGS Quadrangle
Kershaw, South Carolina (1969)

Scale
0 1067 meters
0 3500 feet

Figure 1.1 Project Area Location Map

1.2 Description, Location, and Area of Potential Effects

The "Project Area" is defined as 12 separate tracts (totaling 223 hectares) proposed for new mining activities at Haile Gold Mine (Tracts A, B, D through J, L, N, and O). The Project Area is on the Kershaw (1969) South Carolina U.S. Geologic Survey (USGS) topographic quadrangle (Figure 1.1). The tracts are located in Lancaster and Kershaw Counties approximately 5.7 kilometers (km) northeast of Kershaw, South Carolina, in an area encompassed by U.S. 601 to the west, Old Jefferson Highway to the north, Ernest Scott Road to the east, and Catawba Road to the south (Figures 1.2a-d).

The project APE takes into consideration project activities that may physically disturb (i.e., a direct effect) or visually impact (i.e., an indirect effect) cultural resources identified during the current study. The APE for direct effects on archeological resources and historic architecture within the Project Area was logically set at the project boundaries. The APE for visual/indirect effects on historic architecture outside the Project Area was set at 100 meters (m) beyond the project boundaries, based on field evaluation of vegetation, modern intrusions and disturbances, and the nature of the proposed mining activities.

1.3 Potential Impacts

Mining operations that could directly or indirectly impact cultural resources include:

- Heavy equipment staging and movement
- Mining excavations, borrowing, filling, and stockpiling
- Construction of facilities and roads
- Erosion and siltation associated with the above
- Potential visual effects on historic resources within the 100-m APE

1.4 Scope-of-Work

The scope-of-work directly reflects the compliance needs of the current undertaking. To meet these needs, RSWA conducted a literature and records search, an archeological field survey of the proposed mine expansion areas, an architectural survey of the project's APE, analyzed pertinent data and compiled the methodological approaches, findings, conclusions, and recommendations into this report.

The report is structured to provide the reader with project methodology (Section 2.0), and a geographic and environmental orientation to the Project Area (Section 3.0), followed by a cultural history (Section 4.0), research design (Section 5.0), survey results (Section 6.0), and conclusions/recommendations (Section 7.0). A complete bibliography follows in Section 8.0. The Principal Investigator's resume is presented in Appendix A. The report complies with the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (FR 48, No. 190:44728-44737), the *South Carolina Standards and Guidelines for Archaeological Investigations* (SHPO 2009), and the *South Carolina Statewide Survey of Historic Properties survey manual* (SHPO 2007).

Figure 1.2a Tracts A and B

Figure 1.2b Tracts D-West, E-West, and E

Figure 1.2c Tracts F, G, H, I, J, N, and O

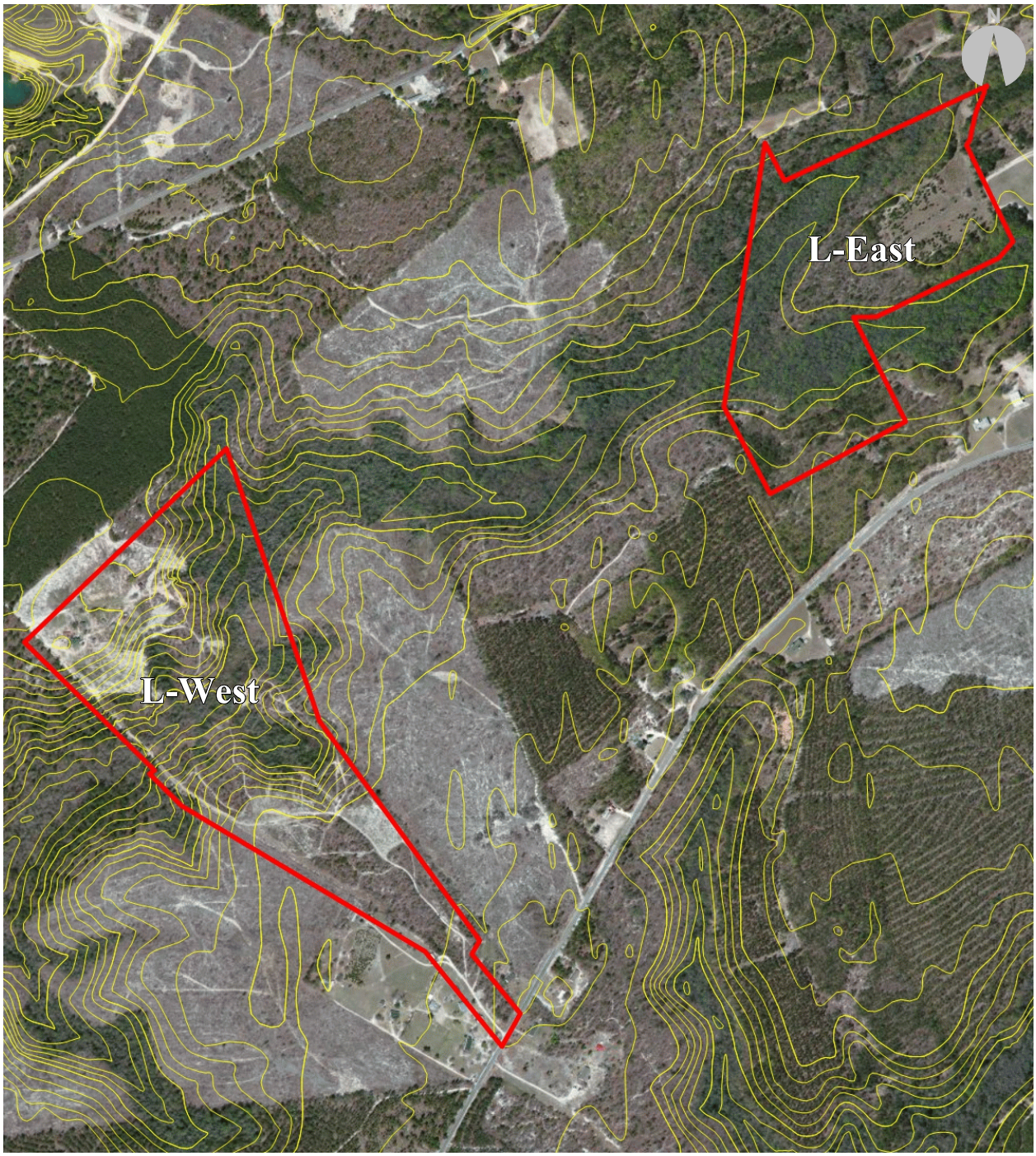


Figure 1.2d Tracts L-West and L-East

Robert S. Webb served as Principal Investigator and Beth Gantt served as Architectural Historian for the project. The literature and records search was conducted by Neil J. Bowen (Historian). The literature and records review was followed by an intensive field survey performed by David Port (Senior Archeologist), Stacy Young (Senior Archeologist), and Jonathan Bloom (Senior Archeologist). The report was co-authored by Mr. Webb, Mr. Port and Ms. Gantt, with contributions from Mr. Neil Bowen (Historian). The report was edited for substance by Mr. Webb (Senior Principal) and Ms. Gantt. Ms. Susan Wells edited for typography and produced the report. The authors were supported (GIS, graphics) by the work of Wendy Bozarth Finney, and Jan Parrish-Jordan.

1.5 Curation

The survey report and supporting data will be curated at the South Carolina Institute of Archeology and Anthropology (SCIAA), University of South Carolina in Columbia. These materials will be temporarily maintained at R.S. Webb & Associates, 2800 Holly Springs Parkway, Suite 200, Holly Springs, Georgia. The final report and associated data are on PC-compatible electronic media.

2.0 METHODS

2.1 Literature Review Sources

The review focused on identifying previously recorded cultural resources within or adjacent to the Project Area. A "cultural resource" is defined as a discrete area of human activity that is more than 50 years old. Background data on the Project Area were gathered from the following repositories:

- SCIAA, University of South Carolina (USC), Columbia, South Carolina
- Cooper Library Map Room, USC
- South Carolina Department of Archives and History (SCDAH), Columbia.

At SCIAA, the official archeological site files and maps were examined, followed by a review of the pertinent site forms and the manuscript/report files. At SCDAH, ArcView, pertinent compliance document files, official maps, NRHP files, Lancaster and Kershaw Counties historic structures survey files, and historic county maps were reviewed. At the Cooper Library, historic maps and aerial photographs were examined for trails, roads, structures, and cemeteries.

The following sources were examined to search for historic resources within and adjacent to the Project Area:

- 1825 Mills Atlas
- 1865 Plate 80, No. 5, Atlas of the Official Records of the Civil War (Davis *et al.* 1983)
- 1904 Soil Map of Lancaster County
- 1939 and 1958 State Highway Department Map of Lancaster County
- 1949 (partial) and 1966 USDA Aerial Photographs of Lancaster County
- 1969 USGS 7.5-minute Kershaw quadrangle [RS8]

2.2 Field Survey Strategies

Field methodology was tailored to the environmental conditions that exist in the Project Area. The survey tracts are primarily upland ridges and slopes, with a minor presence of creek floodplains/wetlands. Each survey tract was subjected to inspection along 30-m interval transects on which a shovel test was excavated every 30 m. Surfaces were inspected along transects where visibility allowed. Delineated wetlands (flagged in the field prior to the current survey) and areas of standing water were subjected to visual inspection and limited subsurface inspection. Slopes greater than 20 percent were subject to visual inspection and selective shovel testing.

2.3 Field Survey Techniques and Implementation

Transects: The Project Area was surveyed along 269 pedestrian transects with 2,120 shovel test stations (Table 2.1). Each transect was flagged at the beginning and end with the tract and transect number, and the surveyor's initials and date. This aided the surveyors in keeping the transects evenly spaced and provided reorientation when portions of a parcel were surveyed at different times. Figures 2.1a-d illustrate project survey coverage.

Table 2.1 Number of Survey Transects and Shovel Tests by Tract

Tract	A	B	D	E	F	G	H	I	J	L	N	O	Total
Transects	42	3	60	5	4	63	5	7	5	61	12	2	269
Shovel Test Stations (total)	286	12	822	25	12	349	35	44	40	401	86	8	2120
Excavated	282	12	801	25	12	341	35	44	40	382	81	8	2063
Not Excavated	4	0	21	0	0	8	0	0	0	19	5	0	57

Shovel Testing: Shovel testing involved the excavation of 30-centimeters (cm) diameter units at the intervals discussed in Section 2.2. Each shovel test was excavated to sterile subsoil, the water table, or to 80 cm below surface (bs). Shovel test soils were screened through 0.64 cm hardware cloth. Each profile was cleaned, examined, and the soil texture, color, and depth of deposits noted in the surveyor's All-Weather Journal. Shovel tests were not excavated in saturated areas or in areas with standing water (e.g., creeks, floodplains, etc.). Terrain with slope greater than 20 percent was shovel tested at the discretion of the field director to monitor soil conditions and when rock outcrops were observed where prehistoric quarrying may have occurred. A portion of Tract D-East contained animal pens with horses. The pens were surrounded by an electrified fence; shovel tests were not excavated within these animal pens.

Surface Inspection: As observed within the Project Area, exposed surfaces were visually inspected for artifacts. These areas included, but were not limited to, unpaved roads/cuts, push piles, trails, tree falls, and heave zones around tree trunks.

Landscape Scanning: Visual scanning of the landscape of each tract was important in determining the potential presence of archeological sites with surface indications and standing historic architecture. The survey team looked for vegetation patterns, surface artifacts, pits, and/or stone arrangements indicative of house sites, dumps, liquor stills, wells, cemeteries, brick piles, and similar sites with surface features.

Historic Resources/Structure Survey Methods: The visual APE was established by a vehicular and pedestrian assessment of topography, vegetation, and modern intrusions within the environs immediately surrounding each survey tract of the Project Area. From this information, the visual APE was set at 100 m from the boundary of each survey tract. Each survey tract and associated visual APE was inspected for historic

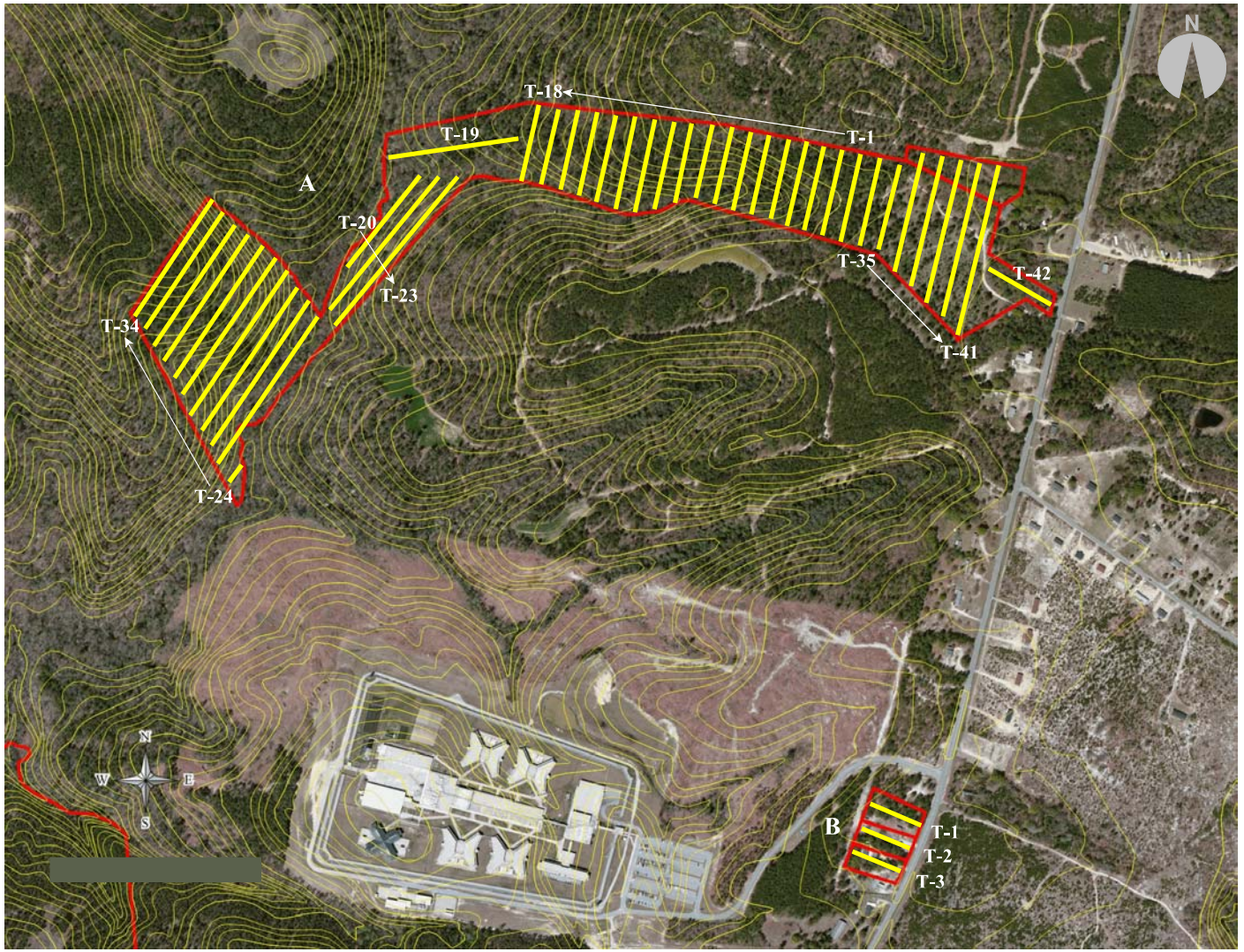


Figure 2.1a Survey Coverage Map of Tracts A and B

Figure 2.1b Survey Coverage Map of Tracts D-West, D-East, and E

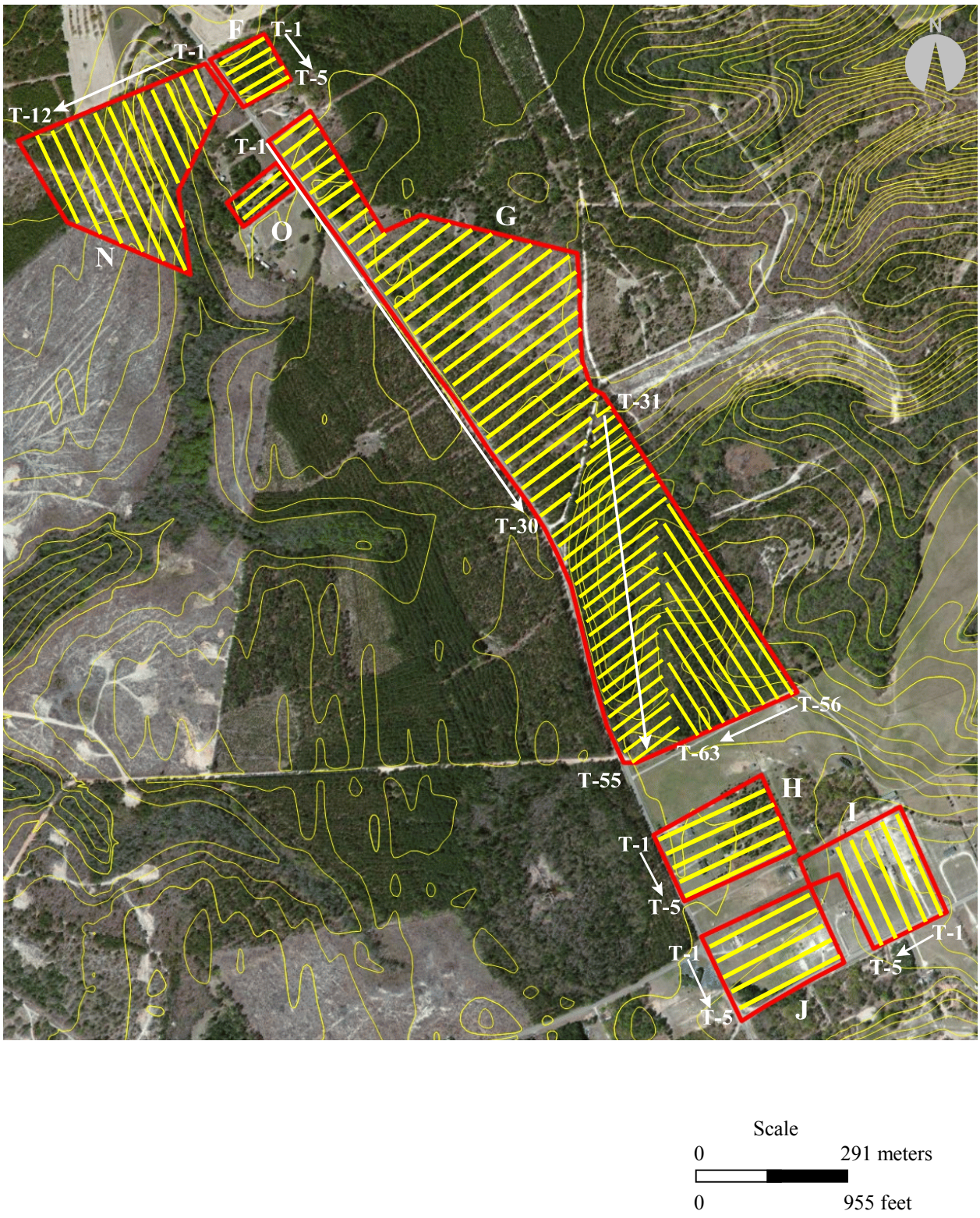


Figure 2.1c Survey Coverage Map of Tracts F, G, H, I, J, N, and O

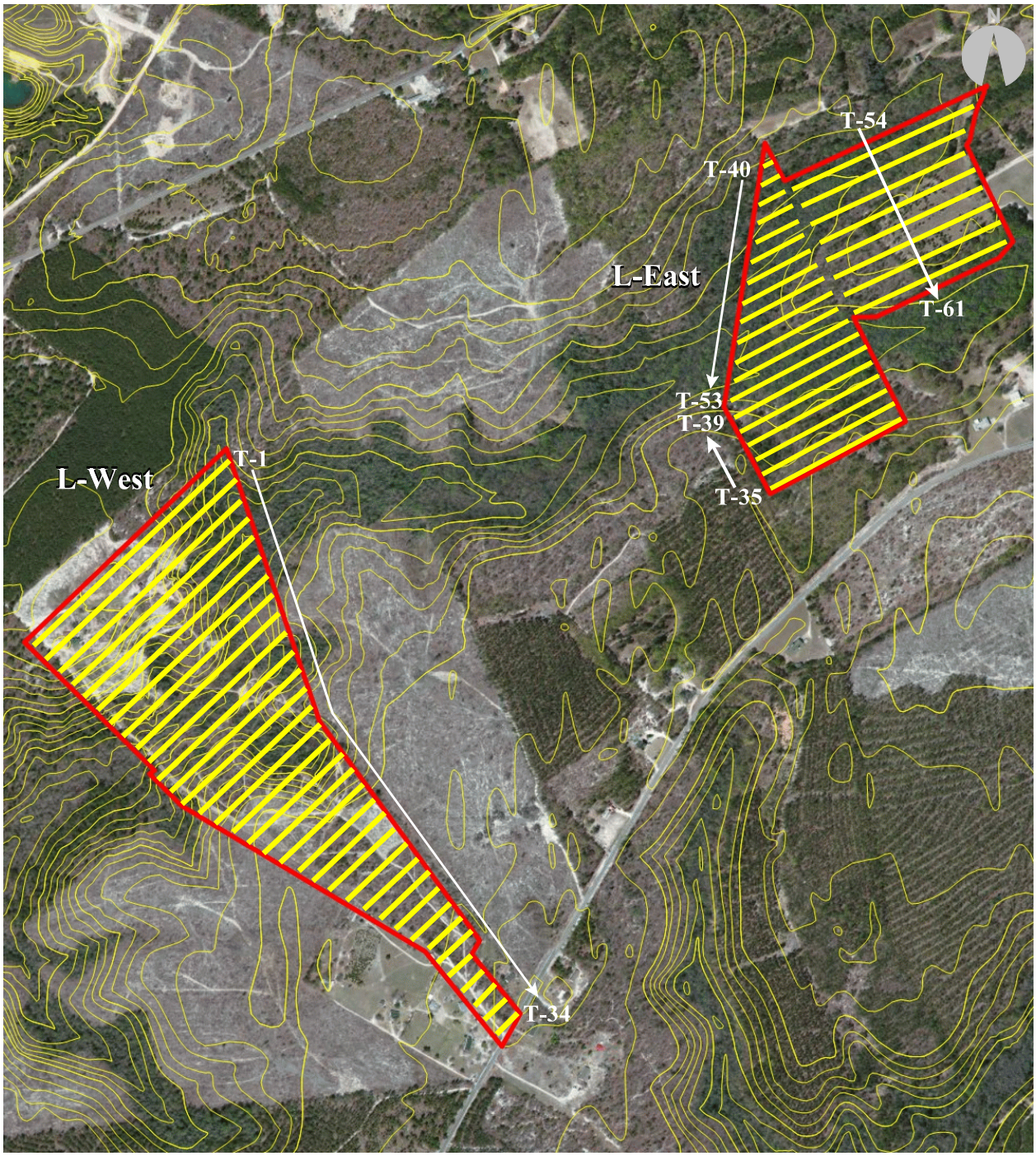


Figure 2.1d Survey Coverage of Tracts L-West and L-East

resources 50 years of age and older. Photographs of the general viewshed surrounding each survey tract were taken and keyed to the project map.

2.4 Resource Definition

Three types of cultural resources were discovered as a result of this investigation. These resources are archeological sites, isolated finds, and structures.

The following definition of an archeological site corresponds with that devised by the South Carolina SHPO, the SCIAA, and the South Carolina Council of Professional Archaeologists (SCSHPO 2009) . Accordingly, an archeological site must be 50 years old or older and meet one of the following criteria:

- An area yielding three or more artifacts from the same broad cultural period (i.e., historic or prehistoric) on the surface within a 30-m radius;
- An area with visible or historically-recorded cultural features (e.g., shell midden, cemetery, rock shelter, chimney fall, brick walls, piers, earthwork, etc.);
- Fewer than three artifacts associated with recognizable cultural landscape features (e.g. clearly historic trees, fence lines, chimney falls, earthworks, etc.).

Isolated artifact occurrences are historic or prehistoric cultural materials discovered during the survey that are either one or two artifacts (two or more artifacts that mend are treated as one artifact) recovered in a discrete area no more than 30 m apart (SCSHPO 2009). These resources, due to low artifact density, do not qualify as archeological sites, but are worthy of mention in the text. This treatment is a managerial tactic and not intended to make any statement about the original context of any particular isolated artifact occurrence. Based on the Principal Investigator's experience, isolated occurrences are typically ineligible for nomination to the NRHP.

Structures were defined as any standing architecture. In order to qualify as historic, structures must be at least 50 years old.

2.5 Survey Treatment of Cultural Resources

Surface Inspections/Collections: Within archeological sites, exposed surfaces were systematically inspected for artifacts. On light surface scatters, observed portable artifacts were collected and bagged by surface collection unit. On dense surface scatters of debitage or 20th century dumping areas, surface collections were selective and included temporal/functional diagnostics as well as a sample of non-diagnostic materials. Regarding historic sites with structural debris, structural materials were noted but not collected.

Subsurface Testing: When a site was discovered through surface inspection or subsurface testing, it was delineated by conducting shovel tests at 15-m intervals in conjunction with surface inspection. Shovel testing

was performed until resource limits were established within the Project Area, with two consecutive culturally-sterile shovel tests being the basis for site boundary delineation. Physiographic features adjacent to sites, such as steep slopes, stream banks and wetland margins, were also considered in the delineation of site boundaries. Surface scatters void of subsurface materials were defined by the distribution of surface artifacts and/or features.

Isolated Finds (IF): When one or two artifacts were detected in a shovel test bracketed by multiple negative 15-m interval shovel tests they were treated as isolated finds.

Site Recordation: Once a site was defined as described above, the survey team collected environmental data on site-related vegetation, pedology, hydrology, and topography. Resource-related characteristics such as size, deposition, temporal/cultural affiliation, function, and previous disturbances were also recorded. Data needed to complete State site forms and assess potential site significance were collected. Universal Transverse Mercator (UTM) coordinates were recorded on each site utilizing a hand-held Global Positioning System (GPS) unit. Site data were recorded on bound field data forms and site locations were plotted on an enlarged USGS 7.5 minute quad map of the Project Area survey parcels. At least two photographs were taken of each site.

Field Treatment of Artifacts: Artifacts were collected, bagged, and identified by project, site/isolated find number, tract and transect number, surveyor, and date. Artifacts collected from shovel tests were identified by unique shovel test numbers. Artifacts from surface collections were bagged by individual surface collection areas. Large artifacts and recent (less than 50 years old) discard were noted but not collected.

2.6 Criteria for Evaluating Resource Significance and Integrity

The survey information is used to make recommendations about cultural resource's NRHP eligibility status and statements on potential project effects. The following criteria in 36 CFR Part 60.4 are central to evaluating cultural resources:

> *The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and*
>
> *(a) That are associated with events that have made a significant contribution to the broad patterns of our history; or*
>
> *(b) That are associated with the lives of persons significant in our past; or*
>
> *(c) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant*

and distinguishable entity whose components may lack individual distinction; or

(d) That have yielded or may be likely to yield, information important in prehistory or history.

In addition to the above criteria, regulations under 36 CFR Part 800 and guidance from selected National Register Bulletins (Little *et al.* 2000; Townsend *et al.* 1993) and other sources (Glassow 1977) are the basis for assessing cultural resource significance and project effect. Central to the application of these regulatory criteria is consideration for each resource's potential for contributing important prehistoric or historic information to local or regional cultural contexts. A resource's state of preservation, temporal/cultural affiliation(s), extent/density, and/or uniqueness of content are taken into account during resource evaluation.

Glassow's (1977) criteria are used to evaluate archeological resources. Glassow divides the physical attributes of a cultural resource into three basic groups: 1) items (artifacts); 2) deposits (strata); and 3) surfaces (living floors, hearths). Glassow views each of these attributes as having five primary properties: 1) variety; 2) quantity; 3) clarity; 4) integrity; and 5) environmental context (Table 2.2). For the current study, artifact density and diversity, assemblage completeness and clarity, and preservation state were used to establish the research potential of each cultural resource.

Table 2.2 Properties of Physical Attributes of Cultural Resources

Property	Definition (Following Glassow 1977)
Variety	Diversity of attributes
Quantity	Density measure
Clarity	Measure of distinguishing temporal or functional components based on the attributes present
Integrity	State of preservation
Environmental Context	Nature of the surroundings of the archeological resources

Little *et al.* (2000), building on Townsend *et al.* (1993), is also used in evaluating archeological resources. Little defines seven aspects, or qualities, of integrity, as defined in the NRHP criteria. These include location, design, setting, materials, workmanship, feeling, and association (Table 2.3) and each is of differing importance depending on the specific NRHP criteria or criterion under which the resource is being evaluated.

Table 2.3 Aspects, or Qualities, of Integrity for Historic Properties

Aspect/Quality	Definition (Following Little *et al.* 2000)
Location	The place where the historic property was constructed or the place where the historic event occurred.
Design	The combination of elements that create the form, plan, space, structure, and style of a property.
Setting	The physical environment of a historic property, including elements such as topography, open space, viewshed, landscape, vegetation, and artificial features.
Materials	The physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.

Aspect/Quality	Definition (Following Little *et al.* 2000)
Workmanship	The physical evidence of the labor and skill of a particular culture or people during any given period in history or prehistory.
Feeling	A property's expression of the aesthetic or historic sense of a particular period of time.
Association	The direct link between an important historic event or person and a historic property.

Based on the data from the archival research and the field survey, archeological resources are assessed as "ineligible" for the NRHP, as having an unknown NRHP eligibility status (i.e., "unassessed"), or as being "eligible" for the NRHP. Sites are considered ineligible for the NRHP when the survey data demonstrate that: 1) there is little potential for possessing intact archeological deposits (i.e., severely disturbed, redeposited, etc.); 2) the sites have low artifact density and/or diversity; 3) when artifact density is high but also very redundant (e.g., lithic quarry locus, lithic reduction locus, 20th century dumping locus) and/or 4) are less than 50 years old. For these sites and isolated finds, sufficient information often can be collected during the field survey to satisfy research concerns. It is important to note that the probable age of a resource and relative frequency of that particular site type in the area are both considered as important factors in assessing NRHP eligibility status. Recent and/or common historic resources, such as discard scatters or house site components dating to the middle 20th century, are normally considered ineligible for the NRHP.

An archeological resource has an unknown/unassessed NRHP eligibility status when there are insufficient survey data to assess the significance of the site, but there is a reasonable possibility of finding intact deposits or features. This usually occurs when survey-level shovel test sampling is not adequate to make clear eligibility recommendations, or when a portion of the subject site is outside of the Project Area. If it is confirmed through further evaluation (i.e., Phase II testing) that the resource meets one or more NRHP criteria [usually Criterion (d)], the resource is considered eligible for the NRHP. For above ground resources such as historic structures, the potential for significant archeological deposits is considered as well as other factors (see below).

For a cultural resource with an unknown or eligible NRHP eligibility status, the project effects outlined in Section 1.3 are assessed. In assessing the effects, the heaviest weight is placed on project activities with the potential for causing severe disturbance, such as excavation/borrow/fill operations or associated clearing and grubbing activities. The potential effects of project activities are weighed against the potential loss of information retained by each significant cultural resource. Indirect impacts such as visual effects are also considered.

For historic resources recorded within the APE, factors such as age, modifications, association with prominent persons, events, craftsmanship, and uniqueness are considered in assessing NRHP eligibility. For many common and traditional properties (e.g., plain traditional structures, late 19th/early 20th century farmsteads, churches, and cemeteries), association with broad patterns of historical settlement and architecture are important factors in assessing NRHP eligibility status.

2.7 Laboratory Methods

Upon arrival at the laboratory, field bags were checked-in and staged for analysis. Following the identification and cataloging of the artifacts, artifact tables were generated and site plans/drawings were transcribed for the report.

2.7.1 Prehistoric Lithic Analysis

Chipped lithic artifacts were sorted by raw material type and technological features based on Kooyman (2000) and Whitaker (1999). Artifacts were then classified in accordance with a generalized lithic reduction model presented by Collins (1975). As considered necessary, lithic artifacts were subject to examination under magnification to determine the presence of striations, microflaking, and polishing that might be correlated with prehistoric use-wear (Vaughan 1985). As needed, published typologies and reference collections were consulted to identify diagnostic projectile points including: Anderson *et al.* (1982); Cambron and Hulse (1983); Coe (1964, 1995); Whatley (2002), and others. Recovered artifact types are defined in Table 2.4.

Table 2.4 Lithic Artifact and Material Type Definitions

LITHIC REDUCTION

Flake: Lithic artifact with recognizable ventral (interior) and dorsal (exterior) surfaces having a visible point of impact at one end. Flakes are generally broader on the proximal (impact) end and have either tapered or parallel sides. Depending on the stage of reduction, flakes may exhibit cortex and/or flake scars on the dorsal surface. Other characteristics such as striking platform remnants, lipped surfaces underneath the striking platform, and diffuse or pronounced bulbs of percussion can be used to identify a specific flake's mode of reduction. Qualifiers such as "reduction" and "thinning", are used to categorize flakes based on technological characteristics.

> **Thinning Flake:** A flake usually produced during the later stages of biface reduction. This type of flake is relatively thin and flat to slightly curved in longitudinal cross-section. Edges are usually feathered. Dorsal flake scars are common. The platform often retains a portion of the biface margin and a lip is common on the ventral surface at the platform. Although retaining a slight lip, the platform may be quite small. The bulb of percussion is diffuse.
>
> **Reduction Flake:** A flake produced during the early stages of biface and core reduction. This type of flake is relatively thick and often curved in longitudinal cross-section. Platforms are typically large and single-faceted without any lip on the ventral surface. The bulb of percussion is usually pronounced.
>
> **Flake Fragment:** The general features are the same as those of a flake. Flake fragments lack evidence of a striking platform or the crushed remnant of a platform.
>
> **Shatter:** An angular, blocky lithic artifact with no side or edge indicating the point of impact.

CORE/BIFACE MANUFACTURE

Core: A core is a nodule or tabular/angular block bearing one or more flake scars. These artifacts often display a prepared striking platform. An *exhausted core* has become too small to produce suitable flakes for tool manufacture.

Biface: A flake or core reduced by percussion on all margins/edges, that has been shaped by the removal of flakes from both faces. Bifaces were divided into early stage (crude, thick, generally large flake scars) and late stage (refined, thin, generally small flake scars). Bifaces may be modified into a variety of tools with general or specific functions (bifacial tools).

Early Stage Biface: A crude, thick biface with generally large flake scars and uneven margins.

Late Stage Biface: A thinned biface with generally small flake scars and even margins. Though thinned, these artifacts exhibit none of the features characteristic of the PP/K or formal tool (e.g., stems, notches, finely retouched margins). This category includes preforms.

Biface fragment: A partial biface that is too small or fragmented to be assigned to a specific type.

EXPEDIENT TOOLS
Flake Tool: A flake or flake fragment that exhibits intentional retouch or damage due to use on one or more margins/edges. Flake tools have modified edges but often retain original characteristics of the parent flake. These items are expedient in nature and generally should not be functionally classified beyond the "cutting", "scraping" or "piercing" level, based on edge wear and damage. Cutting tools include unifacially and bifacially flaked expedient tools with shallow edge angles. Scraping tools include flakes with unifacially flaked edges and steep edge angles. Expedient "piercing" tools, or perforators, exhibit styli that are often shaped through pressure flaking. These tools usually show damage to the stylus tip (e.g., rotational, crushing). Flake tools that contain multi-functional working edges are termed "composite" tools.

FORMAL TOOLS
Projectile Point/Knife (PP/K): A finished biface that is generally symmetrical and tapers to a piercing or cutting blade and has a prepared base for hafting. Stems, corner-notches, side-notches, side or basal indentations, and concave bases are all hafting attributes. This category includes proximal fragments with hafting attributes identifiable as established projectile point/knife types.

PP/K Fragment: A distal, medial, or proximal fragment of a finished biface that cannot be specifically assigned to an established point/knife type.

Blade: A narrow, thin flake that has a length:width ratio of at least 2:1; formal blades were produced from specially prepared cores, and could have been used for cutting and/or scraping.

COOKING/CONTAINMENT
Fire-Cracked Rock (FCR): Tabular stones or cobbles with angular fractures and often, cortical discolorations; fractures are presumed to be the result of exposure to high heat and/or rapid changes in temperature; there is no evidence of intentional cultural modification (polishing or flake removal).

RAW MATERIAL TYPES (American Geological Institute 1976)
Chert: A siliceous, cryptocrystalline mineral (primarily quartz) formed during sedimentary or through aqueous precipitation and pressure; the following varieties were used by prehistoric peoples in the project vicinity: A percentage of the chert appears to be similar to the following definition for local/"Piedmont" chert.

Local/"Piedmont" Chert: Sedimentary forms are associated with limestone deposits in the Triassic basins of the North and South Carolina Piedmont. May be dark gray, medium crystalline chalcedony with very fine crystalline quartz, a light brown porous chert (Wheeler and Textoris 1978), or a mottled white to gray chert composed almost entirely of chalcedony and microcrystalline quartz (Lautzenheiser *et al.* 1996). Metamorphic forms are referred to as "agate", "cryptocrystalline metasediment", and "jasperiod" by Goad (1979). Metamorphic varieties were probably not sedimentary, but formed by means of silicification of parent rock resulting from contact with super-heated water (Ledbetter *et al.* 1981); as with most metamorphism, exposure time and intensity determine the end product. It is highly siliceous, not fossiliferous; colors vary but are most commonly dark red-brown, brown, olive green, or highly mottled and "agate"-like; often heat-altered.

Quartz: A common tectosilicate found free and with numerous other minerals in the Piedmont. Piedmont specimens range from crystal, to clear/milky fine-grained, to opaque/white coarse-grained. Quartz was readily available in the project vicinity from outcrops, float field environments, and as stream outwash cobbles.

Rhyolite/Dacite: A highly variable extrusive volcanic rock that weathers quickly; light to dark gray, with a coarse-grained to nearly cryptocrystalline structure; local forms include flow banded, plain, and porphyritic. It is the chemical equivalent of granite, but having cooled faster, is composed of smaller crystals. Most of the rock called "rhyolite" by archeologists working on Haile Gold Mine is probably dacite, due to low alkali feldspar content (Le Maitre *et al.* 1989). For the sake of consistency the term rhyolite is used throughout this report for this material. At Haile, rhyolite/dacite may have been procured from outcrop/dike, sill, float field, and stream bed environments. Outcrops and prehistoric

quarries of rhyolite have been identified in the Uwharrie Mountains of south central North Carolina (Daniel and Butler 1996).

Slate: A dense metamorphic rock typically formed from shale. It has a microscopically crystalline structure that forms parallel planes. Slate may have been available as outwash cobbles in local waterways.

Metavolcanic Rock: A Piedmont volcanic rock that has been altered by heat, pressure, and/or chemicals; the degree of alteration depends on the intensity and the length of time exposed to the altering forces; therefore, these rocks have highly variable textures, colors, and compositions; may have been procured from the Fall Line area, or as outwash cobbles along waterways.

Diabase: Diabase (or dolerite), a variety of gabbro, is composed principally of labradorite, augite, with smaller quantities of olivine and magnetite. Diabase has a tightly interlaced microscopic crystal structure that is responsible for the rock's toughness and high crushing strength. These attributes made it ideal for the manufacture of axes, adzes, choppers, and hammerstones. Diabase was available from isolated dikes across the Piedmont. It can also be found as out-wash in local streams.

2.7.2 Prehistoric Ceramic Analysis

Few prehistoric ceramics were found during the current field survey, as possible, ceramics were inspected to determine surface treatment, tempering agent, and vessel morphology. These data were used to place ceramics into a temporal and/or functional framework. Surface treatments encountered during the survey are defined in Table 2.5.

Table 2.5 Prehistoric Ceramic Surface Treatments

Plain: No intentional modifications to the surface observed. Plain surfaces can be roughly smoothed or smoothed. Roughly smoothed surfaces can appear on wares dating to all ceramic-bearing periods. Finely smoothed surface wares tend to be later, typically dating to the Late Prehistoric or Protohistoric periods.

Fabric-impressed: The surface pattern resulting from application of a fabric-wrapped or basket-wrapped paddle to damp clay.

Check-stamped: Surface pattern resulting from application of a carved paddle; checks are square, slightly rectangular or in linear patterns.

Simple-Stamped: Surface treatment created by the application of a carved or incised paddle; paddle channels are parallel to slightly sub-parallel and may even cross-over on poorly carved paddles. Grooves range from shallow and broad to fine and deep. Over-stamping often occurs.

Cord-marked: This pattern was made through application of a cord-wrapped paddle to the vessel surface, Cord impressions vary in cord twist (s or z twists), cord size(fine, intermediate, or coarse), and spacing between cords. Some cord-marked wares exhibit wiped surfaces.

Unknown/Eroded Decorated: A poorly defined pattern can be seen on an eroded surface but can not be defined.

Residual: Sherd less than 0.64 cm in diameter with no clear indication of surface treatment.

Eroded: Surface treatment could not be determined due to severe weathering of the sherd's surfaces.

2.7.3 Historic Analysis

Historic artifacts were analyzed by type and temporal affiliation using published typologies and collectors books on ceramics, glass, metal, and composite materials. Ceramics were examined to identify glazing and paste properties, surface design and treatment, vessel morphology and manufacturing markings. Ceramic

types were classified following Garrow (1982), Gray (1983), Honerkamp *et al.* (1983), Miller (1980), Miller *et al.* (2000), Noel-Hume (1970), and others. The categories of historic ceramics detected in the Project Area are defined in Table 2.6.

Table 2.6 Historic Ceramic Types

Whiteware: A soft, nearly-impermeable, refined earthenware with a clear to slightly blue tinted glaze; use included table, kitchen, and chamber wares. Popular during the middle 19th to middle 20th century.
Ironstone: A hard, impermeable, refined earthenware with clear, slightly yellow or gray glazes; use included table, kitchen, and chamber wares. Popular during the middle 19th to middle 20th century.
Stoneware: A thick, impermeable, hard-bodied ceramic commonly exhibiting alkaline or salt glazes; or Albany and Bristol slips, most often used in the manufacture of utilitarian storage vessels.

Glass was inspected for color, thickness, form, and surface treatments such as etchings, inscriptions, and manufacturing markings. Metal and materials of other compositions were examined for material type, form, and function (Miller *et al.* 2000; Noel-Hume 1970; Nelson 1968).

In addition to typing, artifacts were classified into functional/activity groups. South's (1977) classification system is commonly used for the analysis of historic sites, but the artifact types are most relevant to sites occupied before 1850. In view of the increasing abundance and variety of artifacts on later 19th and early 20th century sites, Gray (1983) proposed a revised system to categorize these more diverse assemblages. Since the site occupation extends into the 20th century, Gray's categories of classification system relevant to the current study are outlined in Table 2.7.

Table 2.7 Historic Artifact Groupings

KITCHEN/SUBSISTENCE: Includes ceramics, bottles, and other food containers, cooking/serving implements and utensils, and food remains.
ARCHITECTURAL/STRUCTURAL: Includes window glass, nails, construction hardware, building materials, and utility related hardware.
ACTIVITIES: Includes objects related to entertainment, stationary equipment, tools and maintenance supplies (includes agricultural and blacksmith equipment).
MISCELLANEOUS: Includes materials that have no obvious function, other than being present at the site or that are unidentifiable because of size or condition.

3.0 ENVIRONMENTAL CONTEXT

3.1 Physiography and Hydrology

The Project Area lies within the Carolina Slate Belt of the Piedmont Physiographic Province near the Fall Line. In this area, the lower Piedmont Plateau interfaces with the Sandhills and Upper Coastal Plain provinces. Elevations in Lancaster County range from approximately 214 m above mean sea level (AMSL) on ridges in the northeast to 92 m AMSL on Lynches River in the southeast part of the county (Rogers 1973). Elevations in the Project Area vary from approximately 177 m AMSL near U.S. 601, to 161 m AMSL at a tributary of Haile Gold Mine Creek. The physiography of the Project Area is characterized by broad, northeast-southwest trending ridges that are dissected by numerous spring-fed streams and ephemeral drainages. Waters from the Project Area flow south into Hail Gold Mine Creek. Haile Gold Mine Creek is a tributary of Little Lynches River, which empties into the Pee Dee River above its confluence with the Little Pee Dee River. These waters discharge into the Atlantic Ocean south of Georgetown through Winyah Bay.

3.2 Geology

The Haile Gold Mine property lies within the Carolina Slate Belt. The Carolina Slate Belt was formed during the Paleozoic era and extends from Virginia to Georgia. It is bordered to the northwest by the Charlotte Belt and to the southeast by the Kiokee Belt. The name derives from low grade metamorphism that has given the rocks a slaty cleavage. More specifically, this belt consists of volcanic and sedimentary rocks that were subjected to low temperature/moderate pressure metamorphism referred to as greenschist facies metamorphism. Typical greenschist facies minerals include chlorite, actinolite, and albite (Maher *et al.* 1994; Rogers 2006; Romarco Minerals, Inc. 2011).

Haile Gold Mine is within the Persimmon Fork Formation of the Carolina Slate Belt. The Persimmon Fork Formation contains poorly sorted, poorly stratified, felsic to intermediate crystal lapilli tuffs or volcanogenic derived sediments containing various amounts of quartz, albite, white mica, cholorite, biotite, and carbonates. Minor rock types include vitric tuff, mudstone, wacke, ripple laminated sandstone, mafic tuff, and mafic amygdaloidal flows interlayered with the crystal lapilli tuffs. In this area, the Persimmon Fork Formation contacts the Richtex Formation. The Richtex Formation is a sequence of very thinly bedded siltstone and mudstone, with wacke, quartz arenite, arkose, and conglomerate lenses, and contains quartz, white mica, chlorite, biotite, and carbonates. Gold mineralization is typically found near the contact of the Richtex and Persimmon Fork Formations (Maher *et al.* 1994; Romarco Minerals, Inc. 2011).

Argillite (a mudstone that grades into shale) occupies the central northeastern part of Lancaster County (Kershaw-Lancaster-Tradesville) north of the Sandhills (Rogers 1973). Post metamorphic basalt/gabbro, granite, rhyolite (flow banded, plain, and porphyritic), and diabase (dikes) are intrusive to this area (Novick

1978). Diabase, quartz, quartzite, rhyolite/dacite, and other Slate Belt materials were used prehistorically for tool manufacture.

Chert sources may also be present in the area. A red to gray colored fine-grained silicate resembling chert dominated the lithic assemblage at 38LA355 on the Haile Gold Mine property, and was found as a minority material at other sites on the property. The presence of cores and a high incidence of cortical and early stage debitage indicate it was of local origin (Cable and Price 2009).

Triassic basins containing lacustrine, sedimentary deposits have been reported in the Piedmont of North Carolina. Wheeler and Textoris (1978) reported two types of chert associated with the limestone deposits in these basins: 1) a dense dark gray chert which is medium crystalline chalcedony with a very fine crystalline quartz, which is probably an inorganic precipitate; and 2) a light brown porous chert which has replaced some of the limestone. A prehistoric chert quarry (31LE83) was identified in one of these basins in Lee County, North Carolina (Lautzenheiser *et al.* 1996). Two chert samples were analyzed: the first compares well with the dark gray chert described by Wheeler and Textoris (1978); the second was a mottled white to gray chert composed almost entirely of chalcedony and microcrystalline quartz (Lautzenheiser *et al.* 1996). Triassic basins are present but much less prominent in South Carolina.

Metamorphic varieties of "chert" also occur in the Piedmont of central to east-central Georgia (Goad 1979; Ledbetter *et al.* 1981), and possibly extend into the west central South Carolina Piedmont. This lithic material was created during episodes of contact with super-heated water that silicified the parent rock material. These cherts are usually limited in extent, and may vary in color from dark reddish-brown, brown, olive green, or highly mottled and "agate-like".

Soapstone is a metamorphic talc-schist that was utilized for the production of cooking stones, soapstone bowls, atlatl weights, and other items. Use of this material became popular during the latter potion of the Late Archaic, but it may have been used for atlatl weight manufacture as early as the Middle Archaic Stanly Phase (Coe 1964). It was highly valued and traded over long distances. Soapstone outcrops occur sporadically across the Appalachian Mountains, Blue Ridge Mountains, and Piedmont regions of the Southeast. Soapstone outcrops yielding evidence of prehistoric quarrying activities have been recorded in the northwest Piedmont of South Carolina (Ferguson 1980), but none are known for the Project Area.

Current commercial interest in Lancaster County's mineral production is not limited to gold. Lancaster County is also a source of granite used for crushed stone, weathered slate and common clay used for brick, and sericite. Sericite, is a mica-based clay used for making brick, as a paint extender, as filler in grouting cement, and some is electrical grade.

3.3 Pedology

Based on the data supplied by the Natural Resources Conservation Service (NRCS 2009) and the U.S. Department of Agriculture (Rogers 1973), the project survey tracts contain 11 soil series: Appling and Chersterfield, Blaney, Blanton, Chewacla, Johnston, Nason, Rutledge, Tatum, Vaucluse and Blaney, Wagram, and Worsham (Figures 3.1a and b). Table 3.1 summarizes the soil types located in the Project Area.

Table 3.1 Soil Types Within the Project Area

Appling and Chesterfield series soils (6 to 10, and 10 to 15 percent slopes) were formed from a parent material of clayey residuum weathered from granite and gneiss. They are very deep, well drained soils on nearly level to strongly sloping Piedmont uplands. They have a 22-cm thick yellowish-brown sandy loam surface layer overlying a 94-cm thick subsoil composed of reddish-yellow and strong brown clay and clay loam. The underlying material is a multi-colored saprolite of sandy clay loam texture.

Blaney series soils (6 to 10 percent slopes) formed in parent material of loamy marine deposits, and are found on marine terraces on sandhills. The are well drained, moderately slowly permeable soils of the Coastal Plain. The 8-cm thick surface layer is very dark gray sand. The subsurface layer consists of 15 cm of dark grayish-brown sand over 40 cm of pale brown sand. The underlying material is a hard, compact, light brown sandy clay loam that is approximately 65 cm thick. The basal layer is a hard, compact, reddish-brown sandy loam that extends to approximately 165 cmbs.

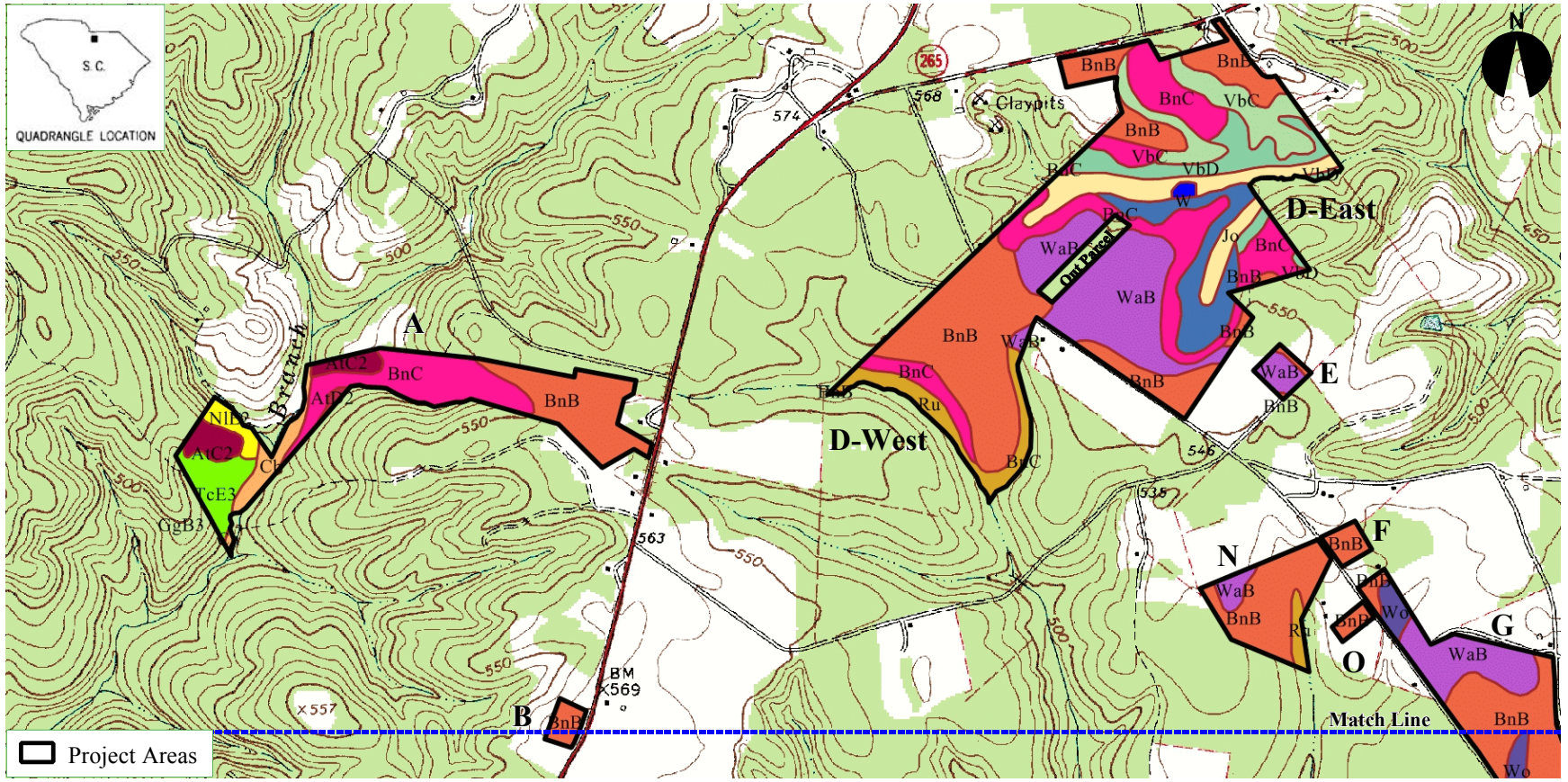
Blanton series soils (0 to 6 and 6 to 15 percent slopes) formed in sandy marine deposits, and are found on marine terraces on sandhills. They are moderately well drained, nearly level to strongly sloping soils of the Coastal Plain. The surface layer is typically a gray fine sand approximately 23 cm thick. The subsurface layer extends to nearly 150 cmbs, and consists of layers of light yellowish-brown, very pale brown, and white sand. The subsoil extends to 215 cmbs, and has an upper pale brown sandy loam layer over a light brownish-gray sandy clay loam layer.

Chewacla series soils (0 to 2 percent slopes) formed in loamy alluvium. They are somewhat poorly drained soils found on floodplains and river valleys. The 20-cm thick surface layer is typically a brown loam. The subsoil extends to 147 cmbs, and consists of an upper layer of dark yellowish-brown and yellowish-brown silt loam, a middle layer of light yellowish-brown loam, and a basal layer of light brownish-gray silty clay loam. The underlying material is sand and extremely gravelly sand.

Johnston series soils (0 to 2 percent slopes) formed in fluvial sediments and consist of very poorly drained soils on floodplains of the Coastal Plain. They typically have black mucky loam or loam surface layers, 76 cm thick. The underlying layers are gray fine sandy loam.

Nason series soils (15 to 25 percent slopes) formed in a clayey residuum weathered from argillite and sericite schist. They are deep, well drained soils found on hillslopes in the Piedmont. They have a 23-cm thick surface layer of yellowish-brown silty loam, overlying a 74-cm thick subsoil of yellowish-brown silty clay loam, strong brown, and yellowish-red channery silty clay loam. The substratum from 96 to 127 cmbs is mottled channery silt loam saprolite that rests on bedrock. White angular quartz pebbles and rock may occur on the surface.

Rutlege series soils (0 to 2 percent slopes) formed in sandy marine deposits of the Coastal Plain. They consist of deep, very poorly-drained soils on upland flats and depressions. The surface layer is black loamy sand, 20-cm thick. The subsurface layer is very dark gray loamy sand to 46 cmbs. The substratum is mottled grayish-brown sand to 152 cmbs.

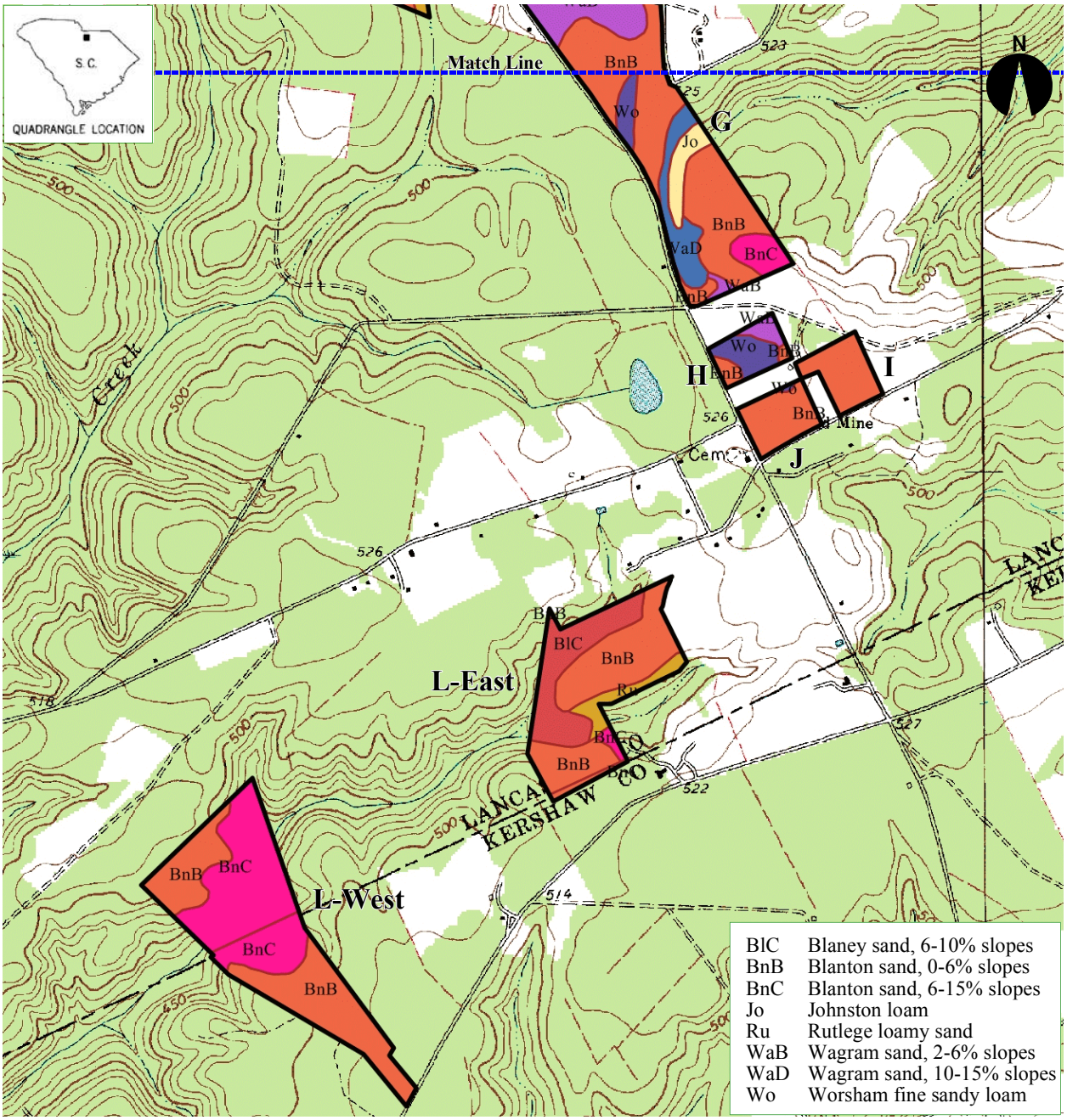


AtC2	Appling and Chesterfield soils, 6-10% slopes, eroded	Ru	Rutlege loamy sand
AtD2	Appling and Chesterfield soils, 10-15% slopes, eroded	TcE3	Tatum silty clay loam, 10-25% slopes, severely eroded
BnB	Blanton sand, 0-6% slopes	VbC	Vaucluse and Blaney loamy sands, 6-10% slopes
BnC	Blanton sand, 6-15% slopes	VbD	Vaucluse and Blaney loamy sands, 10-15% slopes
Ch	Chewacla soils	W	Water
Jo	Johnston loam	WaB	Wagram sand, 2-6% slopes
N1E2	Nason loam, 15-25% slopes, eroded	Wo	Worsham fine sandy loam

Map Reference: 7.5 Minute USGS Quadrangle
Kershaw, South Carolina (1969)

Scale
0 533 meters
0 1750 feet

Figure 3.1a Soil Map (USDA 1973)



Map Reference: 7.5 Minute USGS Quadrangles
Kershaw, South Carolina (1969) and
Mount Pisgah (1967), South Carolina

Scale
0 533 meters
0 1750 feet

Figure 3.1b Soil Map (USDA 1973)

Tatum series soils (10 to 25 percent slopes) formed in clayey residuum weathered from argillite and sericite schist. They are deep, well drained soils on upland slopes. Typically, they have a yellowish-brown silt loam surface layer, 15-cm thick. The subsoil is 91-cm thick, and is layered yellowish-red and red silty clay loam and silty clay. The substratum is mottled weathered schist that crushes to silt loam.

Vancluse series soils (6 to 10 and 10 to 15 percent slopes) formed in loamy marine deposits of the Sand Hills and Coastal Plain. They occur on marine terraces on sand hills. They are very deep soils with a moderately slowly to slowly permeable, partly brittle horizon. They have a loamy sand surface layer and a mottled red sandy clay loam subsoil.

Wagrum series soils (2 to 6 and 10 to 15 percent slopes) formed in loamy and sandy marine deposits. They are deep, well drained soils on upland ridges of the Coastal Plain. The surface layer is grayish-brown and pale brown loamy sand, 50 to 100-cm thick. The subsoil is friable yellowish-brown sandy clay loam to approximately 152 cmbs.

Worsham series (0 to 2 percent slopes) are very deep, poorly drained soils that formed in a mixture of colluvium and clayey alluvium in depressions in river valleys. They typically have a 20-cm thick, dark gray fine sandy loam surface layer. The gray mottled subsoil extends to 127 cmbs, and is layered with sandy clay loam and sandy clay. The substratum is mottled light gray sandy loam, and extends to 178 cmbs.

3.4 Biotic Communities

The Project Area is within the Oak-Pine Forest Region of the upper Atlantic Slope (Braun 1950). It is dominated by upland mesic ridges and slopes, with minor inclusions of creek floodplain environments. The canopy in these well-drained areas may include white oak, blackjack oak, hickories, yellow poplar, sweet gum, loblolly pine, and shortleaf pine. Common understory species are American holly, cedar, dogwood, red maple, sassafras, sourwood, and saplings of the dominant overstory species (Barry 1980; Schafale and Weakley 1990). Sparkleberry, deerberry, dwarf sumac, poison oak, rosemary, St. Andrew's cross, and sand myrtle are common shrubs (Barry 1980). Herbaceous plant cover may contain beggarweed, bristlegrass, croton, crabgrass, fox glove, greenbrier, jointweed, muscadine, partridge pea, pokeberry, prickly pear cactus, tread softly, wild lespedeza, wire grass, and yucca (Barry 1980; Rogers 1973). This mosaic of vegetation provides food and cover for a variety of wildlife, and the fall mast production attracts some species, such as the white-tail deer, in great numbers.

Mammals expected to occur in the uplands include mice, shrews, bats, opossum, raccoon, red and gray foxes, woodchuck, Eastern chipmunk, long-tailed weasel, cottontail rabbit, Eastern spotted and striped skunks, fox and gray squirrels, and white-tailed deer (Burt and Grossenheider 1976). Avian residents include great horned, screech, and barn owls, American kestrel, Cooper's, sharp-shinned, and red-tailed hawks, wild turkey, bobwhite quail, woodpeckers, nuthatches, vireos, cardinal, crow, mockingbird, wood thrush, brown thrasher, and a host of other passerines (Robbins *et al.* 1983). Migratory birds include a variety of species that summer or winter in the area, as well as many transient species that pass through the region on their way to their summer or winter habitats. Reptiles include box turtles, fence lizards, skinks, copperheads, rat snakes, garter snakes, king snakes, and rattlesnakes. Toads are the most common amphibians encountered

in upland settings although some salamanders too may be found in moist upland environments (Conant 1975; Jensen *et al.* 2008).

Creek floodplain canopies may include American elm, bitternut, black walnut, green ash, red maple, river birch, shagbark hickories, shingle oak, sugarberry, sweet gum, sycamore, and yellow poplar. The understory may contain American holly, box elder, common pawpaw, ironwood, red maple, and southern sugar maple. Shrubs may include aneilema, beaked hazelnut, burreed, mountain doghobble, painted buckeye, river cane, sedges, silky dogwood, smartweed, spicebush, spikerush and other rushes, strawberry bush, and wild millet. Various ferns and a host of vines and herbs provide a rich groundcover (Barry 1980; Rogers 1973; Schafale and Weakley 1990).

Floodplain mammals may include raccoon, mink, muskrat, beaver, Eastern cottontail, mice, shrews, and white-tailed deer (Burt and Grossenheider 1976). Avian residents include the barred owl, flycatchers, grey kingbird, red-bellied and pileated woodpecker, prothonotary warbler, red-tailed hawk, red-shouldered hawk, various warblers, and turkey. Migratory birds include a variety of wintering, summering, and transitory species (Robbins *et al.* 1983). Various frogs and toads, salamanders and newts, stinkpot, Eastern mud turtle, common snapper, Eastern box turtle, painted turtles, water snakes, cottonmouth, canebrake rattlesnake, and others, comprise the floodplain herpetofaunal community (Conant 1975; Jensen *et al.* 2008).

Fish common to Piedmont waterways include various suckers, darters, shiners, pickerels, bullhead, channel catfish, sunfish, bass, trout, and perch. Benthic inhabitants include various gastropods, freshwater mussels, and crayfish.

3.5 Climate

The climate of Lancaster County may be characterized as mild and temperate, with rainfall well distributed throughout the year. Tropical maritime air masses may persist for extended periods in this region. Tornados are rare in Lancaster County, and the county is far enough inland that it escapes severe damage from tropical storms and hurricanes. Temperatures vary from an average low of 31E F in March to an average high of 91E F in July. The average minimum precipitation of 2.6 inches occurs in October, while the average maximum rainfall of 5.9 inches occurs in July. December and January may see more than a half inch of snow.

3.6 Historic Alteration of the Environment

The southern Piedmont is one of the most severely eroded areas in the United States. European settlers began migrating into the South Carolina Piedmont during the middle 18th century. Small areas close to streams were cleared for agricultural plots and timber needs by the 1770s. Agricultural land use spread from alluvial settings to include most upland areas within the next 40 years. By 1860, Lancaster County, although classified as a general or mixed farming area, was intensively farmed for cotton and tobacco, and by 1880,

this area was subject to moderately high erosive land use practices largely from abandonment of exhausted agricultural fields (Trimble 1974).

Erosive land use practices decreased during the period of 1880 to 1920, "probably due more to a decline of abandoned land (transition to forest) than to a reduction in cash crop acreages" (Trimble 1974:87). During the next 45 years, the percent of land in forest, woodland, and pasture increased from approximately 67 to 83 percent. By 1935, soil conservation measures were implemented on remaining crop land utilizing farm planning for soil conservation that included both land use and reclamation, as well as technical and financial assistance to farmers implementing conservation measures. Farm management techniques included crop rotation, contour plowing, terracing, deep plowing into subsoil, strip cropping, stubble-mulching, cover crops (i.e., green manuring), and fertilization. By 1967, erosive land use practices were reduced to approximately 7 percent of the acreage in the southern Piedmont (Trimble 1974).

The earliest aerial photographs of the Project Area available for review were found in the Soil Survey of Lancaster County (Rogers 1973). These photographs were flown in 1966, compiled for the soil survey in 1971, and published in 1973. In 1966, Tracts A, B, D through J, L, N, and O were under cultivation with only minor infringements of woodlands along drainageways or isolated trees. The confirmation of middle to late 20th century cultivation in the Project Area indicates that most of the area has been disturbed by plowing and crop cultivation. Three structures were present in the survey tracts in 1966 with two in Tract D and one in tract E. A portion of Tract B along U.S. 601 (where a house is now located) appears to be disturbed, possibly in preparation for house construction; a field road oriented west-southwest to east-northeast forms a border between the disturbed area to the north and the agricultural fields to the south.

4.0 CULTURAL HISTORY

In order to provide a cultural context for the Project Area and the resources encountered within it, the following prehistoric periods will be discussed: Paleoindian (12,000 to 10,000 BP), Archaic (10,000 BP to 3,000 BP), Woodland (3,000 BP to 1,000 BP), Late Prehistoric (Mississippian)/Protohistoric (1,000 to 350 to BP), and contact period (AD 1520-1700). The history of the Project Area since about 1650 follows the prehistoric/protohistoric overview.

4.1 Paleoindian Period

The Paleoindian (12,000 to 10,000 BP) inhabitants of the Project Area lived in an environment of climatic equability without summer and winter temperature extremes, and in which tropical and boreal species coexisted. Large herd animals including now extinct megafauna were exploited, as were smaller game, fish and plants. Associations between Paleoindians and megafauna in the Southeast have been documented since the late 20th century (Anderson *et al.* 1996). Evidence of this association from Florida includes a speared giant tortoise from Little Salt Springs (Clausen *et al.* 1979) and a projectile point embedded in a *Bison antiquus* skull recovered from the Wascissa River (Webb *et al.* 1984), as well as artifacts manufactured from megafaunal ivory and bone (Anderson *et al.* 1996). Paleoindian artifacts have also been recovered in association with megafaunal species in Tennessee (Barker and Broster 1996). However, the exact relationship between Paleoindians and megafauna in the southeast is still largely unknown. Much of the paleobotanical and paleofaunal evidence suggests that Paleoindian groups in the eastern United States enjoyed a diverse diet. Such a subsistence strategy implies a nomadic, small-band lifestyle.

The most diagnostic artifacts of this period include formalized unifacial scraping and butchering tools, and bifacial, fluted, lanceolate projectile points. Clovis, Suwanee and Simpson lanceolate points predominated during the early part of the period, followed by the later transitional Dalton type (Goodyear 1982). Goodyear (1982) contends that the first large-scale exploitation of the southeast took place during the Dalton horizon. In support of this, Goodyear *et al.* (1989:38) cite a five to 10-fold increase in the frequency of Dalton point locations compared to Paleoindian point locations. Distributional studies (Anderson *et al.* 1990, 1996) have demonstrated that Paleoindian sites cluster near the Fall Line of the Savannah River. Significantly, these occur in areas with abundant lithic resources, specifically the Carolina Slate Belt zone of the lower Piedmont and the Allendale/Brier Creek chert deposits of the upper Coastal Plain.

At the Pasquotank site in northeast North Carolina, fluted points were found in association with endscrapers, limaces, flake gravers, spokeshaves, uniface fragments, a pointed scraper, one piéce esquilleé, and debitage (Daniel *et al.* 2007). Daniel *et al.* (2007) conclude that high quality tool-stone, tool curation, functional flexibility, and tool recycling are significant aspects of this assemblage which provide insights into the

foraging adaptations of the site inhabitants, and may have broader implications for understanding Paleoindian settlement/subsistence in the Southeast.

4.2 Archaic Period

The Archaic period is split into three major subdivisions: 1) Early; 2) Middle; and 3) Late. These divisions are based on the occurrence of specific projectile points and assemblage components that are distinctly associated with particular adaptive strategies.

Early Archaic (10,000 to 8,000 BP): During the Early Archaic period, subsistence/settlement adaptations developed in response to the effects of Early Holocene climate change. One of the most obvious effects would have been the variation of seasonal extremes which would have promoted seasonally available resources. Prehistoric peoples may have scheduled their movements and activities around the availability of these resources.

A possible response to these changes was that Early Archaic projectile points (e.g., Taylor, Big Sandy, Bolen, Kirk/Palmer, and bifurcate types) were more variable in form compared to those made during Paleoindian times. In addition, the Early Archaic tool kit expanded to include not only animal processing tools, but also a wider range of more advanced faunal/floral processing tools including drills, endscrapers, choppers, adzes, and grinding stones (Chapman 1977; Claggett and Cable 1982; Kimball 1993, 1996). The expanded took kit suggests that Early Archaic peoples were dependent on an array of aggregate and seasonally available foods.

Middle Archaic (8,000 to 5,000 BP): In the Piedmont, the Middle Archaic is believed to represent a period of human dispersion and technological generalization, perhaps in response to climatic changes that left the Piedmont drier and warmer than in earlier times. Middle Archaic peoples are depicted as residentially mobile bands, exploiting a relatively homogeneous Piedmont environment by hunting, collecting, and foraging, an exploitative strategy referred to as "adaptive flexibility" by Blanton and Sassaman (1989). This strategy is believed to be the basis for the dense concentration of the Middle Archaic sites found in the South Carolina Piedmont (Anderson 1996b).

Middle Archaic assemblages are usually quite homogeneous, containing high frequencies of debitage, expedient tools, and relatively few curated tools. Middle Archaic sites are typified by an almost exclusive use of local raw lithic materials. Artifacts typical of the Middle Archaic in this region include Kirk Stemmed, Kanawha, Stanly, Morrow Mountain, Guilford, Brier Creek, Benton, and MALA PP/K types (Anderson *et al.* 1982; Coe 1964, 1995). Coe (1964) and Oliver (1985) suggest that Stanly points are technological derivatives of the Kirk Stemmed type, and show pre-characteristics of the later small Savannah River point. The Guilford and later Halifax points show morphology derivation from Morrow Mountain (Oliver 1985).

Late Archaic (5,000 to 3,000 BP): The Late Archaic was marked by population growth and local adaptation in the Carolina Piedmont. Overall distribution of Late Archaic occupations is similar to that of Middle Archaic groups. However, Late Archaic settlement patterning in the Piedmont Southeast suggests limited residential mobility, based on carefully planned collecting and hunting schedules timed to coincide with the procurement of certain "critical" resources, both within and beyond territorial boundaries (Sassaman *et al.* 1989, 1990). In general, long-term Late Archaic residential bases are often found on large stream terraces and low upland landforms rather than inter-riverine ridges and knolls (Anderson and Joseph 1988; Sassaman *et al.* 1989, 1990). These residential bases are complemented by specialized extractive sites where specific resources were being procured or hunted. Specialized sites include biotic and lithic procurement stations and camps which were probably located near other resources to maximize productivity.

During the Late Archaic period, the frequency of artifacts related to vegetal processing increases, as does the presence of waste shell at sites along major waterways. This period is characterized by the production of large, broad-blade, stemmed projectile point types (e.g., Savannah River), highly variable medium stemmed point types (e.g., Otarre, and Gary), and a wide range of groundstone items. About 3,500 BP, soapstone artifacts began to regularly appear within the domain of groundstone technology. Soapstone was used by Late Archaic peoples to manufacture atlatl weights, bar gorgets, pipes, cooking slabs, and "nutting" stones.

Soapstone was also commonly fashioned into hemispheric, flat-bottomed, conical, and elongated cooking bowls of varying sizes. Truncer (2004, 2006) proposed that soapstone bowls were used primarily for the processing of mast, especially red oak acorn. A detailed analysis of residues adhering to the interior surfaces of soapstone bowl sherds recovered from the Hunter's Home Site in upstate New York suggests that these vessels were used for cooking a broader spectrum of biotic resources (Hart *et al.* 2008). It should be emphasized however, that the use of soapstone bowls does coincide with increasing interests in horticulture during the Late Archaic along with the introduction of ceramic technology (i.e., Stallings fiber-tempered pottery followed by Thom's Creek sand-tempered wares).

4.3 Woodland Period

The Woodland Period is traditionally subdivided into early, middle, and late subperiods. These divisions are based on technological changes usually reflected in the evolution of ceramic traditions, accompanied by increases in population and social complexity. Detailed studies of the Woodland Period in north central South Carolina are lacking, therefore much of this discussion is drawn from work in adjacent areas.

Early Woodland (3,000 to 2,300 BP): Early Woodland sites retain many Late Archaic characteristics (Claggett and Cable 1982). Though, archaeologists have noted a high incidence of sites with co-occurring

Late Archaic point types and Early Woodland ceramics, determinations of continuity or discontinuity between these two cultures awaits further work (Claggett and Cable 1982; Coe 1964; Ward 1983).

Early Woodland sites have been recorded in river floodplain and upland settings. Although data for the eastern South Carolina Piedmont is scanty, the Early Woodland settlement profile for the Southeast indicates a society moving toward residential stability, probably within the confines of more structured political units.

The Early Woodland is represented by Badin Phase and Yadkin Phase ceramic complexes. Badin ceramics are typically tempered with fine sand, and may be cord-marked, fabric-marked, or plain; Yadkin ceramics contain crushed quartz temper, and may be check-stamped, cord-marked, fabric-marked, linear check-stamped, simple-stamped, or plain (Anderson 1996a; Ward and Davis 1999). The chronological relationship of these two ceramic series remains unclear, however Trinkley (1990) suggests that Badin preceded Yadkin. Projectile points characteristic of this period may include, and are not limited to, the following small stemmed varieties such as Gypsy, Swannanoa, Coosa, Thelma, and Flint Creek, but these types were rapidly replaced by large triangular spearpoints such as Badin, Otarre, Gary, Copena, and Yadkin, many of which lasted into the Middle Woodland period (Coe 1964; Ward 1983; Ward and Davis 1999). Anderson (1996a) proposes that Woodland period check-stamped wares should be classified as Deptford.

Early Woodland Deptford ceramics appear to have developed in Georgia (circa 2,800 BP) out of the Early Woodland Refuge phase (3,000 to 2,500 BP) and spread north into the Carolinas and south into Florida. Deptford ceramics continued to be made and found on Middle Woodland sites in the Southeast up through about 1,400 BP. Deptford wares occur throughout the Coastal Plain and Fall Line areas of South Carolina and Georgia (Anderson *et al.* 1982; Anderson 1996a). They are characterized by a sandy or gritty paste with larger quartz inclusions (Anderson 1996a). Fabric-impressed, cord-marked, and check-stamped wares identified as Wilmington and Deptford were recovered during archeological testing of sites on Haile Gold Mine property (Cable and Price 2009; 2010). Wilmington series occur somewhat later in the Middle Woodland sequence although an overlap of surface treatment suggest that Wilmington series may be contemporaneous with later ceramics in the Deptford series (Cable and Price 2009, 2010). Wilmington wares are characterized by crushed sherds or grog in the paste/temper along with medium to coarse quartz sand.

Trinkley *et al.* (1995) advises that ceramics typical of the Early Woodland in the central-to-western Piedmont of South Carolina consist of Dunlap and Swannanoa series (similar to the Kellogg Phase of northern Georgia). The Dunlap series is characterized by a coarse to sand paste, fabric impressions, and small vessels forms such as cups or jars. Swannanoa ceramics feature heavy crushed quartz temper and are cord-marked or fabric-impressed vessels of medium size such as conoidal jars and simple bowls. Other surface treatments consist of simple stamping, check stamping, and smoothed plain (Keel 1976:230).
In Benson's (2006) *Cultural Resources Overview of the Sumter National Forest,* which includes the Enoree Ranger District located in Newberry, Union, Chester, Laurens and Fairfield counties of South Carolina, the

discussion of the Early Woodland Dunlap series also found similarities with the Kellogg phase that lasted from 2,800 BP until roughly 2,100 BP. and was evidently marked by the emergence of formal village life along the river bottoms in northwest Georgia and perhaps areas within the South Carolina Piedmont. Some of the northern Georgia, Early to Middle Woodland ceramic sequences are commonly applied in the western-to-central South Carolina Piedmont in the Long Cane Ranger District vicinity. They also routinely describe assemblages from the central Piedmont, near the Enoree Ranger District, located along the Charlotte Belt and Carolina Slate Belt regions (Benson 2006). The Dunlap series was followed by the Deptford series, which includes simple-stamped, cord-marked and check-stamped wares in the Middle Woodland period and phases. Some fabric-impressed Deptford ceramics might actually be better defined as Dunlap ceramics. In addition, Benson (2006:iv) consulted with both Cable and Anderson, and these authors were acknowledged for their comments focusing upon an interpretive synthesis of the South Carolina Piedmont cultural overviews as well as the previous surveys/archaeological background chapter. The Cape Fear ceramic sequence is not identified nor referenced in the overview for the Sumter National Forest Districts.

Similarly in Cable and Price (2009; 2010), the Cape Fear series is not used in their analysis at Haile Gold Mine; rather Wilmington and Deptford ceramic sequences are provided for Early to Middle Woodland periods and phases, while the Camden series is representative of Late Woodland occupations.

Middle Woodland (2,300 to 1,200 BP): In much of the southeastern United States, the Middle Woodland period represents a climax in cultural complexity. Earthen mounds containing elaborately furnished graves appear during the Middle Woodland, indicating the development of a stratified society with clearly defined religious belief systems. Grave goods often include non-local materials, denoting participation in a complex trade network. The Middle Woodland ceremonial complex (referred to historically as the Hopewell tradition) is centered in the Tennessee River Valley of Alabama and Tennessee (DeJarnette 1952; Webb 1939), and extends into Georgia (Jefferies 1976), the highlands of western North Carolina (Keel 1976), Kentucky, and the Ohio River valley (Caldwell and Hall 1977; Walthall 1972).

Middle Woodland occupations were documented during Phase II and Phase III investigations at Site 38LA355 on the Haile Gold Mine property (Cable and Price 2009; Patch *et al.* 2011). During Phase II work, a cache of late stage bifaces was thought to be blanks for Copena PP/Ks, but this could not be confirmed during data recovery. A Middle Woodland multi-family seasonal settlement was also recorded at 38LA301 and a less extensive occupation was noted at Site 38LA291 (Cable and Price 2010).

Middle Woodland settlement patterns for the eastern South Carolina and lower North Carolina Piedmont are typically characterized as short-term or seasonal occupations demonstrating residential mobility. These occupations have been recognized by continued use of Yadkin series ceramics and projectile points (Trinkley 1990). Uwharrie ceramics appear in the latter portion of the Middle Woodland and continue into the early Late Woodland. They are tempered with crushed quartz or coarse quartz sand; surface finishes may be plain,

simple-stamped, fabric-impressed, cord-marked, or brushed; vessel interiors are typically scraped (Anderson 1996a).

Late Woodland (1,200 to 1,000 BP): In the southeastern United States, the Late Woodland period has been described as one of declining Middle Woodland influence and subsequent Mississippian period emergence (Cobb and Nassaney 1991). In the Piedmont of eastern South Carolina and North Carolina, the Late Woodland is a continuation of Uwharrie manifestations first seen during the later Middle Woodland, with the addition of net-impressed surface treatments. The medium-sized Uhwarrie Triangular PP/K may indicate the first use of the bow and arrow in the region; smaller triangular points (e.g., Caraway and Clarksville) occur in later Late Woodland assemblages (Ward 1983; Ward and Davis 1999). Randolph points are also seen in the assemblage and were likely fashioned from waste flakes or conserved, broken points from earlier periods. Justice (2002) suggests that the Randolph is perhaps a correlate to the Bradley Spike, a Tennessee derivation, or the Ledbetter Cluster of points (Ledbetter and Pickwick types). The Randolph point was named by Joffre L. Coe (1964) for examples he found in Randolph County, North Carolina.

Uhwarrie subsistence focused on combined hunting/foraging and horticultural practices, and the use of large storage pits (Ward and Davis 1999). Based on horticultural interests and access to a diverse resource base, Late Woodland settlements typically occupy floodplain settings associated with larger waterways (Cantley and Kern 1984; Coe 1995; Fitting 1978).

In the vicinity of Camden in Kershaw County, a 2001 study produced evidence that Camden Simple-stamped wares were being produced towards the end of the Late Woodland period. A feature at 38KE264 bearing a Camden Simple-stamped jar provided a Late Woodland radiocarbon date of 1,160 +/- 60 BP (Webb 2001). Camden ceramics (simple-stamped, check-stamped, and incised) were identified in the middle Wateree River valley area (Stuart 1975), and later thought to be temporally similar with Santee wares, which fall into a post-Cape Fear, pre-Pee Dee, Late Woodland context (Anderson *et al.* 1982).

4.4 Late Prehistoric (Mississippian)/Protohistoric

Throughout much of the southeastern United States, classic Mississippian period culture is marked by the appearance of large villages (often palisaded), public architecture/earthworks, development and support of an elite ruling class and moderate to heavy reliance on maize agriculture (Ferguson 1971). Mississippian societies are often viewed as having hierarchical structure within territorially defined chiefdoms. Central to each chiefdom was a primary ceremonial complex containing one or more temple mounds, which served as the sociopolitical headquarters for an ascribed, elite ruling class (chiefly class/lineage group) (Wright 1984). Minor ceremonial centers, managed by local authorities, villages, hamlets, and individual farmsteads surrounded these primary ceremonial centers and provided the chiefdom's economic base and the operational structure for executing ruling class edicts.

Pee Dee (1,050 to 500 BP): Pee Dee culture spans the Late Prehistoric/Protohistoric period in the central Carolina Piedmont and has its roots in the Late Woodland. How well it correlates with cultural traditions in the project region remains to be seen; however, given the relative proximity of the Project Area to the Pee Dee heartland, it is worthy of mention. Pee Dee was in part contemporary with the Uwharrie tradition, and it appears these two cultures interacted but were socially and spatially separate entities (Coe 1995). Oliver (1993) divides the Pee Dee culture into three phases, the Teal Phase (ca. 1050 to 800 BP), Town Creek Phase (800 to 600 BP), and Leak Phase (600 to 400 BP); termination of the Leak Phase has been refined by Ward and Davis (1999) to 500 BP. The Leak Phase represents the zenith of the Pee Dee culture, and corresponds with the time of maximum Mississippian expansion elsewhere in the Southeast (Coe 1995). Pee Dee culture is recognized by distinct plain, complicated-stamped, simple-stamped, and cord-marked ceramics, and small triangular or pentagonal projectile points (Coe 1952, 1964).

Emergent and Early Mississippian (850 to 750 BP): Across much of the interior South Caorlina, diagnostic ceramics suggesting emergent Mississippian occupations are rare. Based on comparative data from the Upper Savannah River (Hally and Rudolph 1986) and mouth of the Savannah (Depratter 1979), Early Mississippian ceramic types in the vicinity may include Savannah Complicated-stamped, plain, burnished plain, fine cord-marked, check-stamped and occasionally, corn cob impressed. Typically, rims are plain and unmodified (Sassaman *et al.* 1990).

Middle Mississippian (750 to 550 BP): During the early Middle Mississippian period Savannah Check stamping is common, followed by plain, burnished plain and Savannah and Irene Complicated-stamped. Later manifestations include Pee Dee/Irene Complicated-stamped sherds. Rims are modified with rosettes, nodes, and infrequently folded or applied (Sassaman *et al.* 1990).

With the exception of the Town Creek mound complex (31MG2), in North Carolina, the monuments of classic Mississippian period chiefdom society do not appear in this portion of the Piedmont. However, there are mound complexes relatively close to the Project Area in the upper Coastal Plain. Approximately 30 km south of the Project Area, in the vicinity of Camden, there are two sites that appear to have Middle Mississippian affiliations; the Adamson Mound complex (38KE11) and the Guernsey Site (38KE14), both just south of Camden (Stuart 1975). Adamson appears to contain both Pee Dee and Savannah Phase occupations. At Guernsey, an interesting ceramic manifestation was recorded that was believed to date to the Middle Mississippian period. The Camden Ceramic Complex (Stuart 1975) at Guernsey is represented by simple-stamped and check-stamped globular and conoid jars tempered with quartz grit. Incised lines are often applied near the rims of these vessels, over the stamped pattern.

Late Mississippian (540 to 350 BP): This period is poorly represented and understood in the Project Area, although at least one Late Mississippian to Protohistoric mound complex is known to the south of the Project Area near Camden, the McDowell/Mulberry Mound (38KE12). (Stuart 1975). At 38KE12, a large variety

of ceramics and ceremonial items were recovered, including pipes, engraved shell gorgets, burial urns, and figurine fragments. Ceramic treatments include incised wares similar to Irene Incised and complicated-stamped wares similar to Lamar, and wares similar to Cherokee Qualla ceramics, and perhaps earlier Pisgah Phase ceramics.

4.5 Contact Period (AD 1520 - 1700)

The first detailed reports on the interior aboriginal population in South Carolina came from the Hernando de Soto expedition in 1540. The expedition traveled through Georgia into the Coastal Plain of South Carolina and then north through the sandhills along the Wateree and Catawba Rivers to the primary town of the Mississippian Chiefdom of Cofitachequi (Edgar 1998:22-23). Cofitachequi (Mulberry Mound site) is located along the Wateree River in Kershaw County approximately 16 miles (25 km) southwest of the Project Area. De Soto and his men enjoyed the hospitality of the Indians for two weeks. In perverse return, de Soto took the queen and a number of her ladies captive to serve as guides, and for protection from native hostilities as they traveled north. Cofitachequi remained a major nation through the late 17th century (Edgar 1998:12). Other Indian groups in the region during the European contact period included Siouan peoples who lived in the area east of the Wateree and Congaree Rivers, the Cherokee to the northwest, and Catawbas to the north.

Due to Spanish incursions into the interior of the Southeast, the native population was severely decimated by disease. Even during the de Soto expedition, several villages along the route were found depopulated as a result of an epidemic spread from the failed Lucas Vasquez de Ayllon settlement along the South Carolina coast in the 1520s (Edgar 1998:13). It is estimated that nearly half of the Cherokee Nation in the northwest part of the state may have died due to disease transmitted by the Spaniards (Edgar 1998:24).

It was during this time that the Pee Dee culture was replaced by Caraway (500 to 300 BP), an admixture of Late Prehistoric/Protohistoric Lamar and Siouan cultural traditions (Coe 1964). The Caraway Phase is known from small triangular (Caraway) points, a distinctive ceramic assemblage, and European trade goods. Caraway ceramics include thin, hard, fine sand-tempered plain, complicated-stamped, simple-stamped, net-impressed, brushed, and corncob-impressed wares; smoothed plain and burnished surface treatments are more common later in the sequence (Coe 1937, 1964, 1995). European trade items may include glass beads, clay pipes, gun flints, iron axes, copper bells, and dark green bottle glass.

4.6 Historic Period

Twenty-seven years after de Soto, Juan Pardo entered South Carolina and followed the Wateree River valley to the Catawba River valley into North Carolina and established the earliest European settlement in the interior, Fort San Juan. Fort San Juan was established at the native town of Joara; archeological and

documentary evidence suggest that the Berry Site (31BK22) in the upper Catawba River basin is the location of Joara (Beck *et al.* 2006). Fort San Juan was manned by 30 men who lived there for about 18 months before the fort was burned in 1568. None of the expeditions of de Soto or Juan Pardo likely entered the Haile Gold Mine vicinity.

Settlement of the Back-country: Eventually, as settlements became more established along the Atlantic coast, a general movement into the "back-country" was led by a vanguard of traders and trappers seeking valuable animal hides. The Colonial frontier was loosely defined as land more than 50 miles from the Atlantic coast; this threshold area of the state was then known only as "Indian Land". The area that later became Lancaster County was occupied by Catawba and Waxhaw Indians, who formed a political confederacy by about 1700, and developed economic relationships with the Cherokee, other tribes to the west and with the Europeans to the east. European trappers and traders were precursors to permanent settlement, but they were generally independent and transient, as they repeatedly traversed the area that became Lancaster County en route to and from the economic base at Charleston (Chapman 1980).

European traders stirred Colonial and native relations, resulting in the Yamassee War (1715-1716). Though this war was "hot" for only a short period of time, fears of Indian raids were felt for a generation or more afterwards. In order to defend outlying settlements and regulate the fur traders, Fort Moore was built on Beech Island of the Savannah River, near Augusta, beginning in 1715, and it was garrisoned as late as 1766. Other forts were built during this period at present Columbia (Fort Congaree), Savannah (Palachacolas Fort), and Port Royal Sound (Beaufort Fort). Another response to the sporadic raiding of South Carolina settlements was the establishment of a physical "buffer", in the form of the Georgia Colony in 1732 (Groover 2008).

Land on the Colonial frontier attracted little attention from permanent European settlers until the 1740s when land incentives enticed families to relocate there from Pennsylvania and Virginia (Edgar 1998:205). In 1730, a scheme for the orderly settlement of the back-country was devised with eleven 20,000 acre townships located approximately 60 miles inland. The plan called for each settler to have a fifty-acre share of the proposed townships per family member, with the Commons House of Assembly providing tools, transportation, and food. Eleven such townships were established between 1731 and 1765, including Orangeburg, Amelia, and Saxe-Gotha Townships near the center of the present state and Fredericksburgh nearer the project region on the Wateree River southeast of present Lancaster County. Many of these back-country townships were overwhelmingly settled by German emigrants, though Germans made up only five percent of the total white population of South Carolina at the end of the Colonial period (Edgar 1998).

There were no such settlement provisions for the influx of Scots-Irish immigrants, who found the Pennsylvania region uninviting and moved south. This latter group disrupted the ideal of orderly frontier settlement and it filled the area along the North-South Carolina boarder from the project region west to the

Savannah River; all the while making claim to Cherokee and North Carolina land and creating general havoc for the planners in Charleston. Other immigrants to the South Carolina frontier included the Irish, who settled at Pine Tree Hill (Camden) and other places. About 4,000 Irish arrived in South Carolina through the auspices of the Bounty Act (1761-1768), which offered profit for merchants and ship captains who delivered Protestants to the colony. No provision, however, was made in the act for the health or well being of those delivered, and the result was similarly egregious to that imposed on victims of the Atlantic slave trade. Whereas the low-country was nearly 80 percent English, the back-country became an "ethnic-stew" to which was also added Welch, French, Swedish, Dutch, Jewish, West Indian, and African influences (Edgar 1998:56-62).

By the eve of the Revolutionary War, the economic and political differences between the back-country and the low-country of South Carolina were focused. The Townshend and other Acts incited the low-country population to war for independence from the British, but back-country residents had a bigger complaint with authorities in Charleston than with the Crown. Residents of the project region were not as eager to break with the British as their more prosperous neighbors. A trip from the project vicinity to Charleston, in order to swear a warrant or file a deed, took about one week by horse and several weeks by wagon (Edgar 1998:205). The years following the French and Indian War (1756-1763) saw unprecedented crime in the back-country with the action of gangs and a proliferation of squatters, poachers and thieves. A group of lead citizens known as the Regulators called for law and order in the form of courts, jails and schools. The provincial government was slow to respond, but created circuit courts and judicial districts in 1769. The new political system transformed settlements into towns at Georgetown, Beaufort, and Camden and it created the Camden Judicial District, of which future Lancaster County was a part. The two wars, however, retarded settlement and civilization in the project region as many residents sought refuge in the more established settlements along the coast due to raids by the Cherokees (Edgar 1998).

The beginning of the end of successful British campaigning in the southern states came in the project region. The fall of Charleston in May 1780 was followed by the surrender of American troops under Andrew Pickens at Ninety-Six and Joseph Kershaw at Camden. British Lord Cornwallis' then set about a campaign of brutality and fear during which back-country churches were burned and the bodies of prominent citizens were exhumed and abused. These events, combined with the merciless slaughter of Colonel Abraham Buford's American cavalry by commander Banastre Tarleton's loyalists troops near Tradesville (Lancaster County) in May 1780, led to a local civil war and to the cry of "Tarleton quarter" (no mercy). Upon the burning of his home near Nelson's Ferry, Thomas Sumter, along with Francis Marion, began to rally the back-county populace. The only bright spot for the Patriots during this period was the defeat of loyalist militia at Hanging Rock in Lancaster County on August 6, 1780. An attempt to dislodge the British at Camden failed on August 15 and 16, and Sumter was defeated at Fishing Creek (Chester County) two days later. Cornwallis' move on Charlotte, North Carolina through the project region, was harassed constantly, and he was forced to withdraw from Charlotte to Winnsboro, South Carolina after occupying the former place less than two weeks.

Subsequent major defeats at King's Mountain and Cowpens west of the project region, sealed the fate of the British southern strategy, and final defeat and American independence came less than a year later (Edgar 1998; Power and Brown 1989).

After the Revolution, reprisals against the Tories in the back-country districts, which had the greatest number of loyalists, was often brutal - lynching, killings and banishment were common. Both the low-country and the back-country were in ruins. Homes, farms, and mills had been burned and fields abandoned. It was a difficult recovery for all (Edgar 1998:242-244). There was much social instability especially in the back-country, where along with the diligent settlers, came outlaws and thieves. The loss of the British market was a huge economic blow but it is likely that the low-country felt it more readily than the subsistence oriented back-country. With the relocation of the capitol from Charleston to the centrally located Columbia, and the creation of the state university there, the back-country gained representation and recognition, but the low-country leaders maintained political sway (Edgar 1998).

Establishment of Lancasterville and Lancaster County: In 1785, the Camden Judicial District, roughly the area of land between the Broad/Congaree Rivers (west) and Lynches River (east), north of the fall line boundary between low- and back-county, was divided into several smaller districts including York, Chester, Lancaster, Fairfield, Richland, Claremont, and Clarendon. Lancaster County's present east and west boundaries (the Catawba and Lynches Rivers, respectively) were established by this time, but the north county boundary was not finally established until disputes between North and South Carolina were resolved in 1813. In 1791, Pendleton District was created, northwest of Lancaster District, and included York and Chester Districts. At the same time, Kershaw County was created from the south half of original Lancaster County. Lancaster became a county in 1795, became a District again in 1800, and became a county again in 1868 (Edgar 1998; Power and Brown 1989).

The Lancaster County seat of government was established at Barnettsville in 1791. By 1798, a post office and courthouse were constructed and the town was renamed Lancasterville in 1802. No other incorporated town was established within Lancaster County until after the Civil War. By 1826, Lancasterville consisted of five streets running in each direction and at right angles to one another, and, in addition to the structures mentioned above, it had grown to include a brick academy building (established in 1799), 30 dwelling houses and stores, and 260 residents. A new jail was built in Lancaster in 1825 and a new courthouse was constructed there in 1828; both buildings appear to have been designed by native son Robert Mills and they remain in Lancaster today. An inn was established at a mineral spring in the Hanging Rock vicinity which became a popular tourist destination during the 1850s. The inn was destroyed during the Civil War, but the Heath Spring community continued to grow there after the war [Lancaster Area Chamber of Commerce (LACC) 2011; Power and Brown 1989].

According to the Mills Atlas, an intricate road system was also well established across Lancaster County by the 1820s (Figure 4.1). The County's population was mostly rural and the only community other than Lancasterville was Kingsbury, at the Catawba River in southwest Lancaster County. Near the south boundary of Lancaster County, the road from present Kershaw town northeast to McManis Ferry on the Lynches River crossed little Lynches Creek near Benjamin Haile's home place. In this vicinity gold was discovered about 1827, leading to the establishment of the most successful gold mining operation east of the Mississippi River. Most early industries in Lancaster County were family enterprises dependent on cultivation and included flour mills and grist mills. However, the 1825 atlas shows no mills on Little Lynches or Flat Creeks, the two major drainage systems in southeast Lancaster County, and it further suggests that the east half of Lancaster County was less developed with significantly fewer roads and settlements.

John C. Calhoun, during his reign over South Carolina politics (1824-1850), generally discouraged the introduction of industry to the State's economy, but his policies encouraged the improvement of infrastructure and railroads (Edgar 1998). Entrepreneurs turned first to canal construction along the major rivers of the state and then to railroad construction to increase the ability to get the goods from the middle and upcountry to Charleston and other market centers. With the exception of the Augusta Canal, the overall canal system had failed by 1840, and the state had already constructed its first railroad in 1833 from Charleston to Hamburg (opposite Augusta) in Edgefield County (Wallace 1951). At the onset of the Civil War (1861), there were eleven railroads linking rural areas of the State to Columbia and/or Charleston, but Lancaster was the only district in the State that did not have railroad access (Edgar 1998:283).

During the antebellum period (1800-1860) cotton production lifted the local economies to great heights. Tobacco, the major cash crop of the 18th century, was replaced with cotton by about 1802, but the markets for the raw material remained largely outside Lancaster County, at Camden and Charleston. Other crops grown in the county included corn, wheat, rye, and oats. The rise of cotton cultivation as an economic endeavor is reflected in population statistics from the period. Total Lancaster County population increased from about 6,000 in 1800, to 10,300 in 1830, and to 11,800 in 1860. In 1800, almost 25 percent of the families in the upcountry and middle country owned slaves, and by 1830 about 40 percent were slave owners. The slave population in Lancaster County increased from 16 percent in 1800 to 40 percent in 1830, but rose only slightly, to 49 percent, by 1860. The latter figure was about on par with surrounding back-country counties, but was still well below the percentage of slaves present in many low-country counties (Edgar 1998, LACC 2011, Power and Brown 1989).

Lancaster County was subjected to the vagaries of General William T. Sherman and his troops following their March to the Sea in Georgia (November-December 1864) and the sacking of Columbia, South Carolina (February 1865). The vanguard of the Union army, Brigadier-general Judson Kilpatrick's 4,000 cavalry troops, arrived at Lancaster town on February 24, 1865 and remained about four days, consuming all that was available in the vicinity. The purpose of his visit was to make way for advancing infantry and to feign an

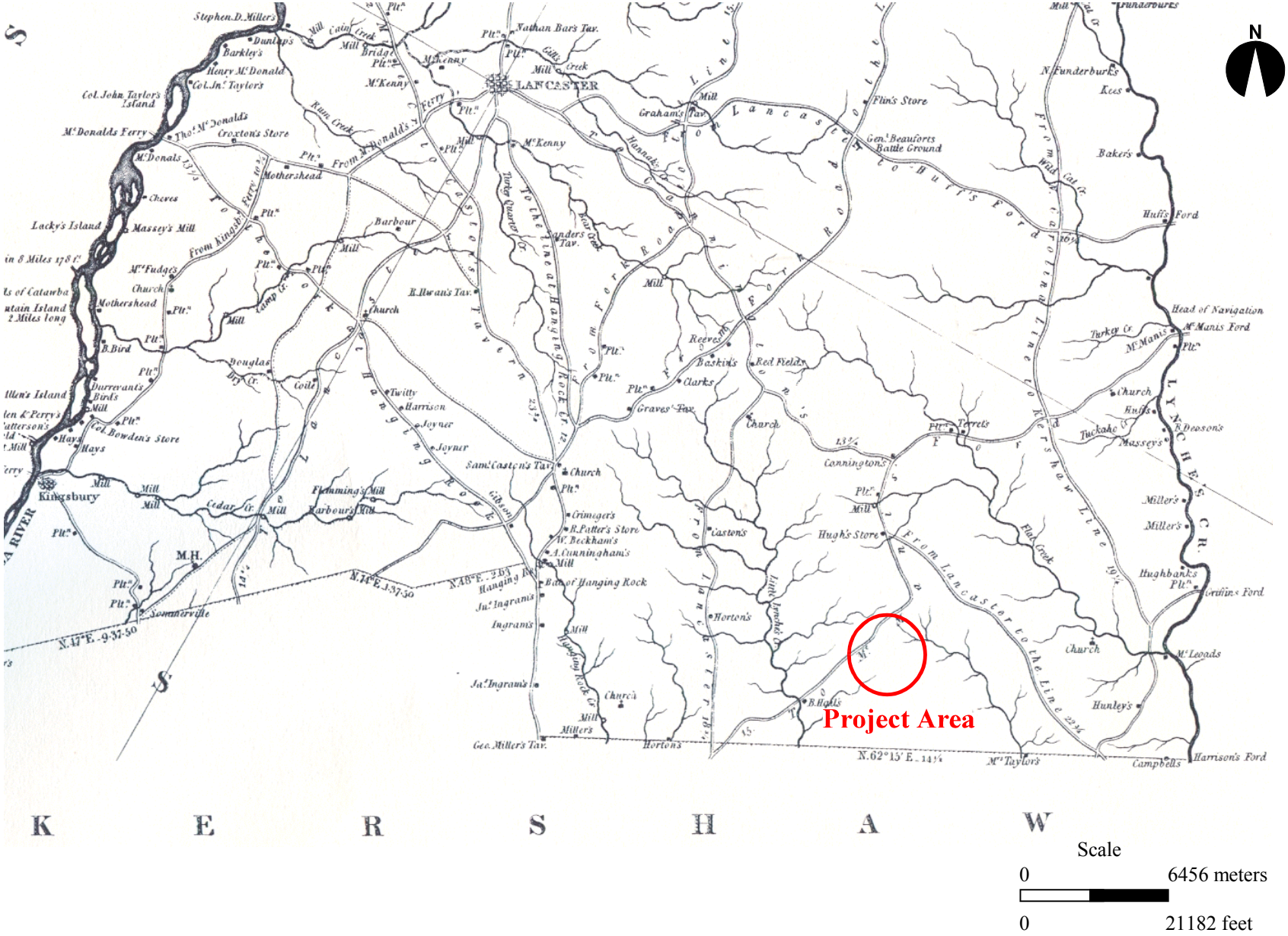


Figure 4.1 1825 Mills Atlas - Lancaster District

attack on Charlotte, North Carolina. As the infantry columns arrived from the Columbia area, Sherman himself crossed the Catawba River at Rocky Mount, in southwest Lancaster County, on February 23. Because of heavy rains, Sherman and his 20th Army Corps camped "for some days" near the Project Area, at Hanging Rock (Sherman 1984:288). Kilpatrick moved northwest to Chester, but he was headquartered at "the gold mines" on and about March 1, 1865 (Cornell University Library 2011). Plate 80 in the *Atlas of the Official Records of the Civil War* shows an encampment and troops in the northwest part (Tract A) of the Project Area (Figure 4.2). Upon leaving the project vicinity, Sherman advanced his troops eastward, crossed the Pee Dee River on or about March 7, and advanced on Fayetteville and Raleigh, North Carolina (Sherman 1984).

The Reconstruction period (1865-1877), or a second phase of the Civil War in South Carolina, was marked by racial animosity and violence, particularly in the upstate region. The period began with a sort of uneasy peace as former owners and former slaves negotiated with one another for an acceptable way to resume economic agricultural activity. The share-cropper or tenant system, whereby an individual rented land and/or seed and equipment in return for a portion of the crop, became widely practiced in the region, but certain social practices, such as children playing together, which was accepted before the war, became unacceptable following emancipation (Edgar 1998).

A new State Constitution was mandated by the victorious federal government, but its 1868 drafting convention was largely boycotted by whites. The result was that the convention reflected actual population percentages and laws were passed that gave blacks opportunity for education and equality. In 1870, Joseph H. Rainey of Georgetown, South Carolina was elected and became the first African American sworn into the U.S. House of Representatives. The white response to Republican inroads was to attack Republican party members, local officials, and members of the state's General Assembly; in Abbeville and Kershaw Counties, local officials were murdered. An appeal by Wade Hampton for the "preservation of order" quelled the violence for about 18 months, but from 1870 until the end of Reconstruction in 1877, widespread violence perpetrated by nascent and largely unorganized Ku Klux Klan guerrillas, continued virtually unabated. In October 1871, the writ of habeas corpus was suspended in nine South Carolina counties including Chester, Chesterfield, Fairfield, Lancaster, Laurens, Newberry, Spartanburg, Union, and York. Some 1,300 individuals were charged with crimes and the most prominent instigators of violence fled the State. Trying the cases was a cumbersome process and resulted in only some 300 cases being heard, with fewer than 40 convictions. The Republican ideal was finally abandoned through a political compromise in Washington. Incoming president Rutherford B. Hayes ordered federal military troops out of the State in March 1877 (Edgar 1998:377-406).

With the return of relative political and social stability after Reconstruction, and the arrival of the railroad in the 1880s, Lancaster County population began a steady rise that continued throughout the 20th century and into the new millennium. Coincidentally, the belated arrival of railroads to Lancaster County provided

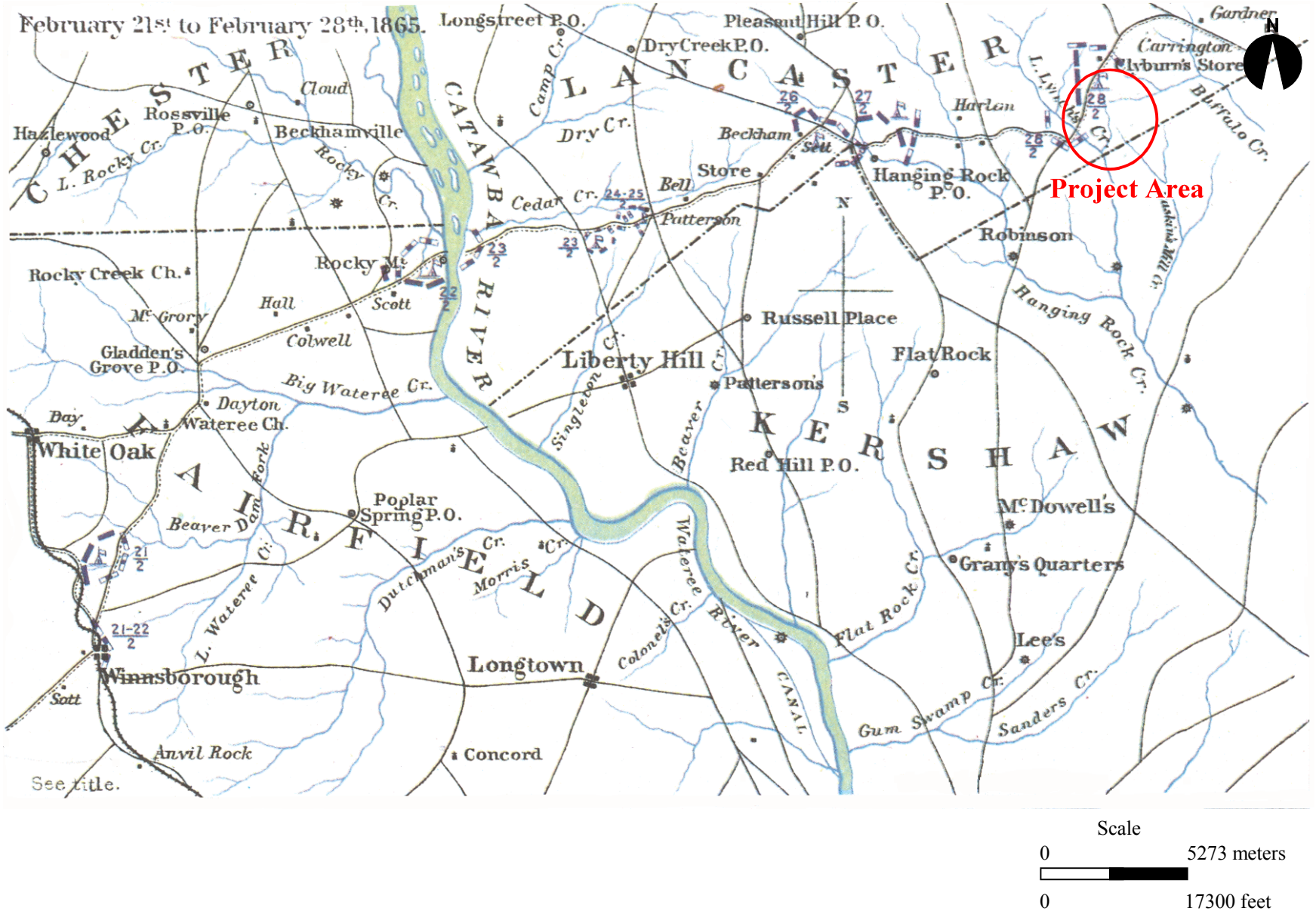


Figure 4.2 Atlas of the Official Records of the Civil War Showing the Project Area (Davis et al. 1983, Plate 80, No. 5)

outlets for local products, stimulated the creation of new towns, and revitalized existing communities. A rail line from Charlotte, North Carolina, through north Lancaster County to Chester was completed by the Charlotte, Columbia, & Augusta Railroad Company in 1883; the town of Van Wyck in northwest Lancaster County was established on this line in 1887. In 1888, the Charleston, Cincinnati, and Columbia Railroad constructed a line from Rutherforton, North Carolina, through Lancaster town, to Camden. The town of Kershaw, named for Civil War general Joseph B. Kershaw of Camden, began in the project vicinity as Welsh's Station of the latter railroad in 1887. Kershaw town was incorporated and renamed a year later. The town of Heath Springs, near old Hanging Rock mineral springs, also became incorporated after the arrival of the latter railroad (Lewis 2007, Power and Brown 1989).

Cotton continued as the major constituent of the local and regional economy, and agriculture as an economic anchor matured during the period 1880-1920. Textile manufacturing arrived in South Carolina and matured during this same period. An economic boom was started in Lancaster County by Leroy Springs, who first founded a cotton shipping company (Leroy Springs and Company) in the 1880s, and eventually established Springs Mills or Lancaster Cotton Mill in 1895. Springs dominated local business for nearly 50 years and became recognized nationally for his exploits in Lancaster County. His mill had 75,000 spindles, 1,600 looms, produced 1.8 million dollars in products annually, and was the third largest such operation in the state by 1907. The plant employed 1,050 "operatives" and the population of the mill village reached 3,000. The factory was expanded in 1914 and 1923, and it continued operations through the 1930s. A similar operation was established at Kershaw with the aid and direction of Leroy Springs in 1912. That plant suffered more severely the effects of World War I and the boll weevil, but it also continued to produce into the 1930s (Power and Brown 1989).

The region's period of agricultural prosperity continued until overproduction and the loss of overseas markets led to a collapse of cotton and tobacco prices in 1920. Then came the boll weevil infestations and severe drought that cut production by nearly half in the early 1920s. Furthermore, nearly 8 million of the State's 19 million acres of land were depleted and declared "destroyed" in 1934. During the same period, total County population rose from 11,797 (1860) to 28,628 in 1920. Because of the decline in cotton prices and production cutbacks, there was a massive emigration of both black and white farm laborers as "nearly all of the strongest tenant families left the cotton fields" (Edgar 1998:485). During this time the ratio of black to white population percentage remained steady at about 50-50 in Lancaster County. After 1920 overall population continued to rise to 39,352 in 1960, but just more that one-fourth of the County's population was black at the latter date. As of the 2010 census, Lancaster County has a population of 77,767; it is 38 percent urban and 62 percent rural, and African Americans continue to make up 25.8 percent of the population [City-data.com 2011, University of Virginia (UVA) 2004].

Following the Civil War and Reconstruction, the number of farms in Lancaster County nearly tripled from 797 in 1860 to 1,965 in 1880, and the number grew every subsequent decade until the total number of farms

reached 6,068 in 1920. However, overproduction, the boll weevil, drought, and overburdened land took their toll and by 1930, there were only 2,778 farms in the County. This number remained relatively steady through the 1960s. Agriculture has never been completely abandoned in Lancaster County and in 2002 there were 637 farms producing wheat (676 acres), soybeans (462 acres), corn (299 acres) and vegetables (42 acres). The number of farms further declined to 573 farms only five years later (City-data.com 2011; USDA 2007; UVA 2004).

Due to general lack of will and an overall lack of resources, the manufacturing sector was slow to arrive in Lancaster County. In 1860 there were only 19 manufacturing establishments recorded, employing 43 individuals. The number hovered around 25 establishments until 1900 when there were 41 such businesses employing 319 people; only five South Carolina counties had fewer such establishments in 1900. The number of manufacturers fluctuated greatly during succeeding decades, but the presence of large textile factories ensured gainful employment for more than 1,400 people. In 1930, the census started recording retail establishments; at that time there were 192 in Lancaster County. The retail sector grew to 264 stores by 1940, when there were also 66 service industry establishments in the county (City-data.com 2011, Edgar 1998, Power and Brown 1989, USDA 2007, UVA 2004).

Other industries that contributed to the Lancaster County economy included the Kershaw Oil Mill (established in 1902), the Lancaster Cotton Oil Company (1907), the Haile Gold Mine (with peak production during the period 1898-1908), and the Ashe Brick Company (1906-present). All told, there were 10,961 people working for pay in Lancaster County at the onset of World War II, but the County lost more of its population during the war (33 percent) than any other South Carolina county, as its citizens went into the armed forces or sought work in mills and defense industries. The trend toward a diversified economy continued following the war and continues at present, as 66 manufacturers account for 32 percent of all jobs, along with 198 service industry establishments (14%) and 243 retail stores (12.7 %) (City-data.com 2011; Edgar 1998; Power and Brown 1989; USDA 2007; UVA 2004).

4.6.1 The Haile Gold Mine

Colonel Benjamin Haile (1768-1842) discovered gold in a branch of Little Lynches Creek in 1827 and in 1828, he shipped the first South Carolina gold to the U.S. Mint in Philadelphia. The 1825 Mills Atlas records the place name of "B. Hail's" near the intersection of Little Lynches Creek and a major road, now Highway 601 (Figure 4.1). Records at the State Archives indicate that Haile was Clerk of Court in Union District in 1802 and that he was granted land there in 1803. He also served as Treasurer of the Upper Division and a Special Commissioner in 1808, and was granted 625 acres on Little Lynches Creek in Kershaw District in 1809. At the latter date, Haile was Commissioner of the Equity Court and Commissioner of Columbia, charged with examining the reports of previous commissioners. Haile was a State Treasurer in 1826 and he was granted 236.5 additional acres of land in Kershaw District in 1842, the year of his death

(SCDAH database search). Increasingly prominent among his peers, Haile was elected to the State legislature and was placed on the Board of Trustees for South Carolina College (now the University of South Carolina). Thus, Haile was situated to take advantage of any opportunity, and he was apparently aware that gold was discovered in nearby Charlotte as early as 1801; however, Haile never actually found the major body of gold located on the Haile Mine property. Rather, he exploited gold deposits within 25 feet of the surface, which was about the limits of mining technology prior to the introduction of late 19th century industrial mining innovations. The major vein, located at depths of at least 200 feet below surface, was not discovered until after his death in 1883 (Nix 2009; Roberts 1989).

By 1837, the Haile Mine included a five-stamp mill, installed by "a Frenchman named Cugnat" that crushed raw ore to expose gold (Pittman 1972:2). Gold fields were discovered in California in 1849 and the Haile Mine was gradually abandoned until the Civil War, when the Confederate government let contracts for gold and other minerals. Following the death of Benjamin Haile, his heirs leased the 1,900 acre property to the Taylor brothers of Charlotte; the Haile's lost possession of the mine about 1866. The Union army visited the mine on its tour between Columbia, South Carolina and Raleigh, North Carolina; they destroyed all working buildings. A Mr. James Eldridge of Camden owned the property until 1880, but it is unknown if successful mining occurred during that period. The early period of mining at the Haile Mine penetrated to a depth of about 25 feet below surface, below which the technology did not exist to make the endeavor profitable (Catawba Regional Planning Council 1976, Nix 2009; Pittman 1972).

A group from New York then acquired the mine and erected a 20-stamp mill, but the operation was not yet successful. The Haile Mine did not reach its potential until after 1887, when Dr. Adolf Theis (1832-1917) was hired. Theis was a German-born engineer with ideas for new methods of extracting gold from raw material (Nix 2009; Pettus n.d.; Pittman 1972). The so-called barrel process was Theis' improvement of the earlier Plattner's and Mears processes of extracting gold from ore. The Theis process combined similar chemicals, chloride of lime and sulphuric acid, with "roasted" raw ore in a 4x6 lead-lined barrel that was turned for about 8 hours. The Theis process was easier and resulted in less exposure of workers to the toxic fumes associated with the earlier processes; however, this process required some electric power and "more than ordinary care and intelligence" to operate (Egleston 1890). Soon a 60-stamp mill and narrow gauge railroad were constructed and the potential of the Haile Mine began to be realized (Pittman 1972). Theis retired in 1904 and left the daily operations to two of his sons. Earnest A. "Captain" Thies (1868-1908) was in charge and present on Monday August 10, 1908 when a tragic boiler explosion destroyed the stamp mill and killed Thies and two other employees. The Golden Age of mining at the Haile went with the explosion, and the property's mortgage was sold to Mr. John T. Stevens at auction in 1911 (Lancaster County Library 2011; Pittman 1972).

The Haile Mine was operated intermittently through World Wars I and II, and the operation appeared robust as late as 1939. The 1939 Lancaster County Highway Map shows the Haile Gold Mine complex and a school

under that name (Figure 4.3). In a fifth annual report to investors for the year ending June 30, 1939 it was reported that a second unit of the cyanide plant brought capacity to 350 tons of raw ore per day, and that contemplated renovations to the first unit could bring capacity to 400 tons daily. In 1938-39, ore was gained from four deposits, the Beguelin Pit, Red Hill, Chase Hill, and Clyburn, for a total of 84,290 tons with an average $5.54 assay per ton (almost half a million dollars). During the year, 29 shipments of gold and silver bullion were made, totaling $414,228.47, and gold license was continually increased. Other plant improvements included the switch from gasoline to electric power and installation of a new compressor at Red Hill, several new mill buildings, a new dam, and concrete spillway to replace those washed away in the summer of 1938. Plans were also made to stock pile raw ore to keep the plant running when mining wasn't possible. Delineating at Red Hill and exploration at Clyburn were in progress, and mineral rights to 628 acres of adjoining property were obtained; total acreage at the Haile Mine had reached 3,128 acres. The 1939 report included almost double the gross revenue reported in 1938 (Haile Mines Inc. 1939). The mine closed in 1942 due to a Presidential order which called for the closure of all gold mines not essential to the war effort. Haile Gold Mine was not reopened until 1985 in response to the rising cost of gold (Pluckhan and Braley 1993). The mine has continued operation into the 21st century under the ownership of ROMARCO Minerals, Inc..

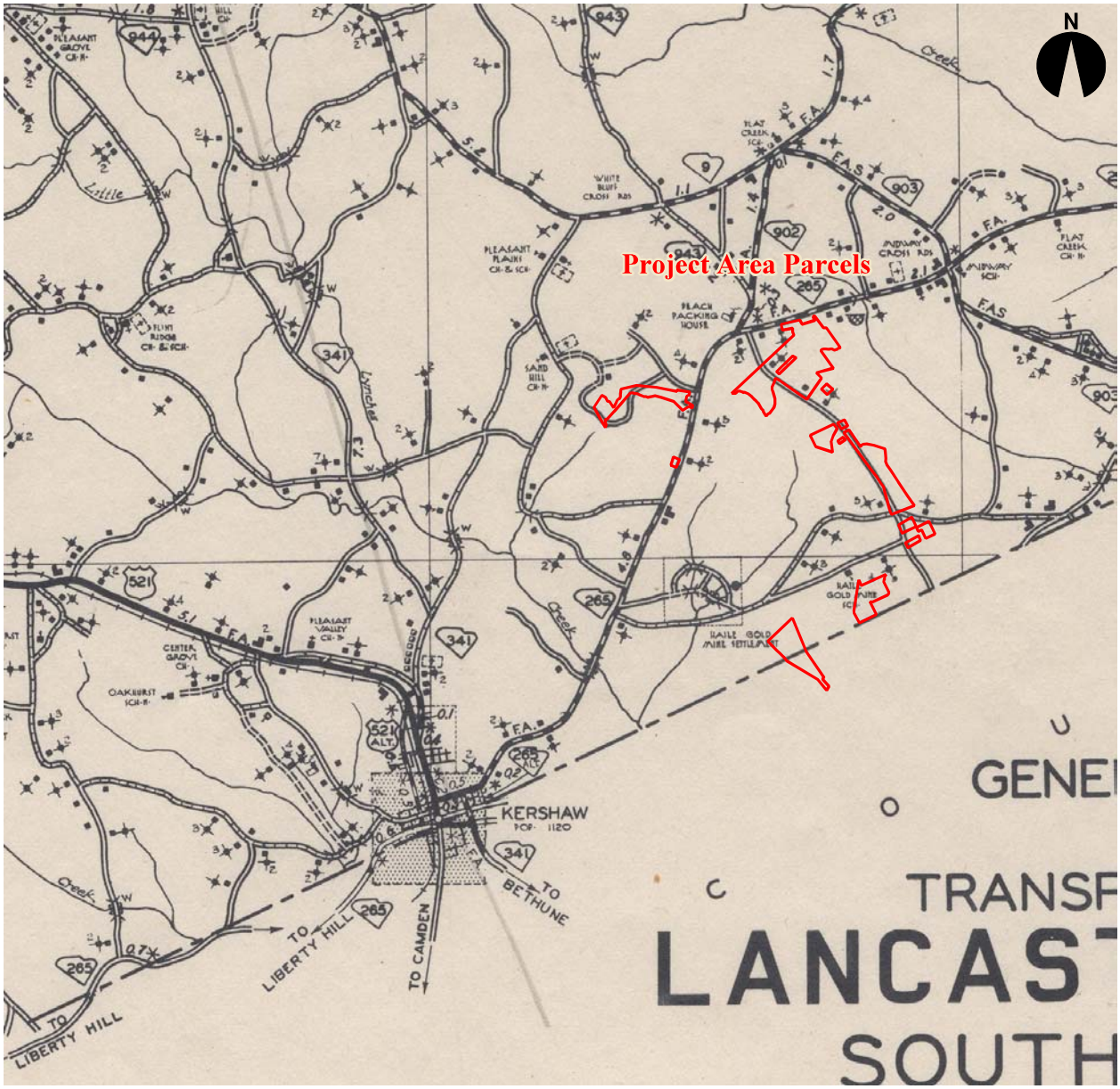


Figure 4.3 1939 General Highway Map of Lancaster County

5.0 RESEARCH DESIGN

5.1 Overview

Based on previous work in the region, predictions were made as to the expected frequency and location of different types of prehistoric and historic sites in the Project Area. This information was used to define high and low probability areas.

5.2 Research Expectations

Prehistoric Populations: Given previous archeological work conducted in the Haile Gold Mine area and regional data on the lower Piedmont and Fall Line, the following expectations appeared reasonable:

Paleoindian Period: One set of Paleoindian settlement models suggests that these groups established staging areas at strategic locations along major stream valleys and near lithic sources (Anderson 1996b). These staging locations, are believed to have been possible stop-over locations for early colonizing groups. Given that the Project Area is proximate to the Fall Line and to desirable lithic materials, Paleoindian sites could be expected in the inter-riverine settings of the Project Area.

Archaic Period: An overall trend of increasing site density, from the Early Archaic to the Late Archaic, was expected. This expectation stems from the archeological evidence suggesting that as infilling occurred over time, territorial ranges decreased and social complexity increased. If some variant of the Anderson-Hanson model (Anderson 1996b; Anderson and Hanson 1988) or the Hanson Savannah River Site model (Hanson 1988) is true, then one might expect scattered Early Archaic foraging camps, extraction sites and/or field stations in the more remote upland areas of Lancaster County. During the Middle Archaic, one would expect an increase in foraging sites and stations, as groups began to disperse into a more homogeneous Piedmont environment (Blanton and Sassaman 1989). It appears likely that territorial circumscription occurred by the Late Archaic period, resulting in distinct subregional adaptive strategies. Following Sassaman *et al.'s* (1990) model for Late Archaic settlement at the Savannah River site, it was expected that localities such as the Project Area would contain small repeated-use extraction sites and stations.

Of the 246 sites recorded in past surveys on the Haile Gold Mine properties, over half are identified as undiagnostic lithic scatters (Pluckhahn and Braley 1993; Adams *et al.* 2011a; Adams *et al.* 2011b). Many of these sites are potentially Archaic occupations, but due to the lack of diagnostics, this could not be confirmed.

Woodland Period: Brooks and Hanson (1987) proposed an infilling model for Woodland groups utilizing the Savannah River Site. This model states that as tributary systems matured and resource richness increased, Woodland groups established single household bases and foraging zones in these upland zones away from the major streams. Given the presence of permanent water within the Project Area, Woodland household residential sites are possible within the tract; however, foraging camps and field locations are more likely to be found.

Late Prehistoric (Mississippian) Period*:* While there may have been some Mississippian influence from the Camden area and evidence of short term camp sites is possible in the Project Area, residential sites are unlikely. The previous surveys of the Haile Gold Mine holdings recorded no definitive Mississippian components.

Protohistoric and Historic Native Periods: The Project Area lies in a upland area that would not have been conducive to settlement by Protohistoric or Historic Native groups. Therefore, the occurrence of protohistoric and historic native sites was expected to be low.

Historic Populations: Factors affecting historic settlement included access to major waterways, incipient road/trail networking, soil fertility, topography, access to potable water and vegetation, and specifically in the case of the Project Area, the presence of a natural resource - gold. Historic settlement expectations for the Project Area take these factors into consideration, under broad models posited for settlement of the southern Piedmont (Billington 1960; Hudson 1969). In essence, historic rural settlement is viewed as a series of populational waves. The initial wave was typically composed of traders, prospectors/miners and similar speculators. Next, pioneer farmers established the frontier, followed by farmers equipped to manage larger farming operations. Finally, commerce and industry developed when (and if) local infilling occurred. For the Project Area, the industry came early and remained in the form of gold mining.

The expectations for historic resources within the Project Area are presented below:

18th Century: Lancaster County had been settled by the mid to late 18th century, but the population was sparse. For this reason, substantial 18th century sites were expected to be rare.

19th/Early 20th Century: During the early and middle 19th century, the roadways had been established and the Haile Gold Mine was in operation. Outside the gold mine area were farming communities. Population increase in the late 19th and early 20th century are expected to be evidenced in a higher frequency of house sites and activity areas. Past surveys in the area support this expectation. Gold mining extraction features are not expected, given that land use history for the Project Area strongly suggests agricultural use. Nonetheless, prospecting may have been conducted in the Project Area.

5.3 Research Questions

The following research questions are posed in relation to cultural chronology and human settlement/use of the Project Area:

- What are the cultural/temporal manifestations within the Project Area?
- What were the prehistoric settlement/use patterns within the Project Area and how do they compare with reported patterns for the various prehistoric groups?
- How did historic groups use the Project Area? Was historic use limited to agricultural and rural domestic activities?
- Did gold prospecting activities extend into the Project Area?
- In concert with evidence of cultural/temporal affiliation, was the Project Area or portions of the Project Area used selectively during prehistoric or historic times?

6.0 RESULTS

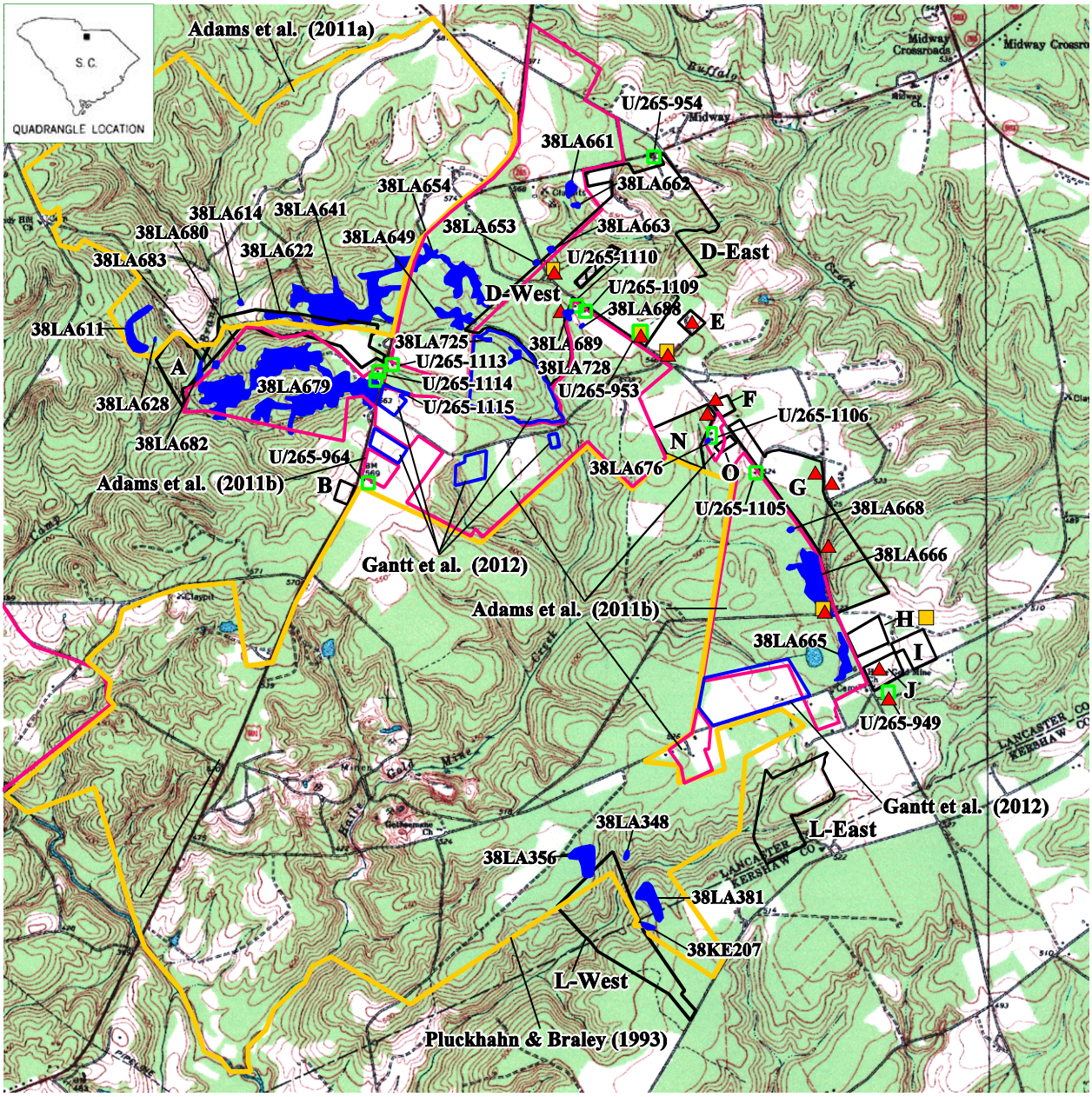
6.1 Literature Review

Previous Phase I/II/III Cultural Resources Studies and Archeological Sites in the Project APE: Eight cultural resources studies have been conducted in or near the APE (Figure 6.1). In 1992, Southeastern Archeological Services conducted a cultural resources survey of approximately 2,330 acres (943 hectares) belonging to Haile Gold Mine (Pluckhahn and Braley 1993). This project included acreage on both sides of U.S. 601, and is adjacent to three of the current survey tracts. The 1992 survey recorded 110 archeological sites and 34 isolated finds. Ninety-two sites were recommended ineligible for the NRHP, and 18 sites were recommended potentially eligible for the NRHP. Ten of the 110 sites were multi-component. Cultural components included non-diagnostic lithic scatters (n=58), Paleoindian (n=2), Early Archaic (n=1), Middle Archaic (n=4), Late Archaic (n=4), unspecified Archaic (n=1), Early Woodland (n=1), Late Woodland (n=1), unspecified Woodland (n=27), and 19th and 20th century components (n=23).

Six of the sites (38LA307, 38LA334, 38LA336, 38LA355, 38LA378, and 38LA380) recommended potentially eligible for the NRHP by Southeastern Archeological Services (Pluckhahn and Braley 1993) were subjected to Phase II archaeological evaluation by Palmetto Research Institute (Cable and Price 2009). Four sites were recommended ineligible for the NRHP; the remaining two sites, 38LA334 and 38LA355, were recommended eligible and data recovery excavations were subsequently conducted at these sites (Patch *et al.* 2011). Site 38LA334 was considered a well-preserved, stratified, Middle and Late Archaic sequence of residential occupations. Based on testing, Site 38LA355 was believed to contain an extensive, intact, Middle Woodland Copena component, with possibly three occupation loci; however this could not be confirmed during subsequent data recovery excavations at 38LA355 (Patch *et al.* 2011).

In 2010, four additional sites (38LA291, 38LA301, 38LA361, and 38LA371) reported by Pluckhahn and Braley (1993) were evaluated under a Phase II testing program (Cable and Price 2010). Site 38LA291 was recommended eligible for the NRHP based on the discovery of Early Archaic Palmer Phase multi-residence occupations thought to represent seasonal aggregation base camps. Site 38LA361 was recommended eligible for the NRHP based on the presence of a pit feature at this hunter-gatherer campsite. A wood charcoal sample collected from this feature yielded a conventional radiocarbon age of 2980 +/- 40 BP (2 Sigma Cal BP 3320 to 3290, and 3270 to 3030), placing this feature in the Terminal Late Archaic. In 2011, 38LA291 and 38LA361 were subjected to data recovery excavations (Keith *et al.* 2011).

Cable and Price (2010) recommended 38LA301 ineligible for the NRHP. The site was an intensively reoccupied Archaic site and the high degree of reoccupation was thought to have significantly mixed the deposits and therefore, greatly limit the usefulness of the archeological data. Also present at this site was a Middle Woodland occupation interpreted as a multi-family seasonal settlement, possibly a semi-permanent



Project Areas
Out Parcel
Previously Recorded Historic Structure
Structure on the 1939 Highway Map
Structure on the 1958 Highway Map
Previously Recorded Archeological Site
Previous Archeological Survey

Map Reference: 7.5 Minute USGS Quadrangle
Kershaw, South Carolina (1969)

Scale
0 1067 meters
0 3500 feet

Figure 6.1 Previously Recorded Cultural Resources

hamlet that was reoccupied by the same group for a number of years. The information contained therein was viewed as redundant to the Middle Woodland occupations detected at 38LA355 the year before (Cable and Price 2010). Only a portion of 38LA371was accessible for Phase II testing. The portion of the site evaluated indicated intensive reoccupation during the Archaic period, and substantial mixing of deposits resulting from cultural and natural processes. On this basis an assessment of "no adverse effect" was given for the studied portion of 38LA371 (Cable and Price 2010).

In 2011, New South Associates conducted a cultural resources management survey of approximately 1,003 acres (406 hectares) of Haile Gold Mine property (Adams *et al.* 2011a). This Project Area is on the west side of U.S. 601, adjacent to one of the current Project Areas, Tract A. Fifty-six archeological sites and 20 isolated finds were recorded during this survey. Thirty-nine sites and all of the isolated finds were recommended ineligible for the NRHP, whereas 17 sites were given an unassessed NRHP eligibility status and Phase II evaluation was recommended. Seven of the 56 sites produced artifacts representing more than one time period. Cultural components detected at the 56 sites include non-diagnostic lithic scatters (n=26), Early to Middle Archaic (n=1), Middle Archaic (n=1), Late Archaic (n=3), unspecified Archaic (n=5), Early to Middle Woodland (n=1), Middle Woodland (n=1), Late Woodland (n=1), unspecified Woodland (n=13), Woodland/Mississippian (n=1), 19th to 20th century (n=2), late 19th to 20th century (n=1), early to middle 20th century (n=2), early to late 20th century (n=1), and unspecified 20th century (n=7).

Later in 2011, New South Associates conducted a cultural resources survey of an additional 1,161 acres (470 hectares) of Haile Gold Mine property (Adams *et al.* 2011b). Some of this acreage abuts tracts of the current Project Area. As a result of their investigations, 80 archeological sites and 57 isolated finds were recorded. Of the 80 archeological sites, 71 sites and all of the isolated finds were recommended ineligible for the NRHP; nine sites were given an unassessed NRHP eligibility status and Phase II evaluation was recommended. Of the 80 sites recorded, 22 yielded evidence of multi-component occupations. Cultural components include non-diagnostic lithic scatters (n=54), Early Archaic (n=2), Middle Archaic (n=3), Late Archaic (n=2), unspecified Archaic (n=3), Early Woodland (n=1), Middle Woodland (n=1), Middle to Late Woodland (n=1), Late Woodland (n=2), unspecified Woodland (n=13), late 19th century (n=2), late 19th to early 20th century (n=4), late 19th to late 20th century (n=1), 19th/20th century (n=3), early 20th century (n=2), early to middle 20th century (n=4), middle 20th century (n=6), middle to late 20th century (n=1), and unspecified 20th century (n=5).

In November 2011 R.S. Webb & Associates conducted a survey of 145 acres (58 hectares) of Haile Gold Mine property (Gantt *et al.* 2012). The tracts abutted many of the New South survey areas, but only one tract is adjacent to the current project tracts. Fifteen sites and 14 isolated finds were recorded. Eleven sites were recommended ineligible for the NRHP; four were recommended as unassessed and for Phase II evaluation. Components include non-diagnostic lithic scatters (n=21), Early Archaic (n=1), indeterminate Woodland

(n=2), late 19th to middle 20th century (n=1), 19th /20th century (n=4), early to middle 20th century (n=1), and middle 20th century (n=1).

Based on site file research, 27 previously recorded sites are within 100 m of the current project boundaries (Figure 6.1). While all of these sites are technically within the project APE, only the 10 sites listed in Table 6.1 have the potential to be directly affected by currently proposed mining activities. This is because these ten resources intrude into or abut the current project boundaries.

Table 6.1 Previously Recorded Sites Within or Abutting the Project Tracts

Site No.	Eligibility	Cultural Period(s)	Reference
38LA356	Unassessed	Middle Archaic	Pluckhahn and Braley 1993
38LA622	Unassessed	Unknown Archaic to Woodland	Adams *et al.* 2011a
38LA641	Unassessed	Unknown Archaic to Woodland; Late 19th to Early 20th Century	Adams *et al.* 2011a
38LA663	Ineligible	Unknown Woodland; Middle 20th Century	Adams *et al.* 2011b
38LA666	Unassessed	Unknown Archaic to Woodland; Late 19th to Early 20th Century	Adams *et al.* 2011b
38LA676	Ineligible	Indeterminate Prehistoric	Adams *et al.* 2011b
38LA682	Ineligible	Indeterminate Prehistoric	Adams *et al.* 2011b
38LA683	Ineligible	Indeterminate Prehistoric	Adams *et al.* 2011b
38LA689	Ineligible	Indeterminate Prehistoric; 20th Century	Adams *et al.* 2011b
38KE207	Ineligible	Indeterminate Prehistoric	Pluckhahn and Braley 1993

State Recognized Historic Structures: Eleven previously known historic structures are recorded within the current project APE (Figure 6.1; Table 6.2). Four of these resources were recorded during a previous county-wide survey entitled *Lancaster County Historical and Architectural Inventory* (Jackson 1986). One of these resources, U/265-949, was reported to have been removed prior to the second Haile Gold Mine survey conducted by New South Associates (Adams *et al.* 2011b). The remaining seven resources were identified by New South during the second survey (Adams *et al.* 2011b). Two of these resources, U/265-1114 and 1115, were revisited during the 145-acre Haile Gold Mine survey conducted by R.S. Webb & Associates (Gantt *et al.* 2012). All the previously recorded resources have been recommended ineligible for the NRHP.

Table 6.2 Previously Recorded Standing Historic Resources within the Project APE

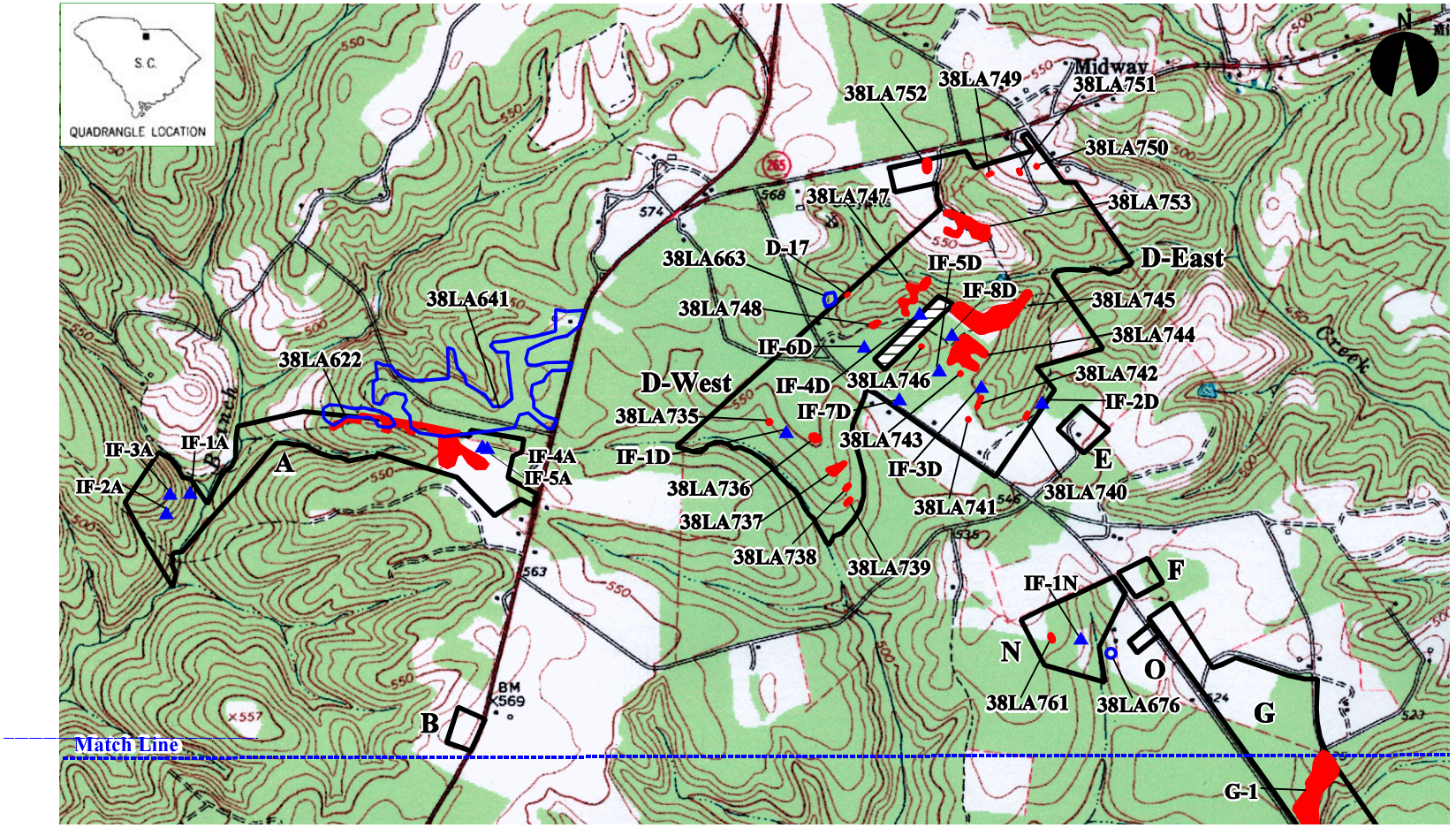
Resource Number	Address/Tract	Type	Date of Construction	NRHP and Management Recommendation	Reference
U/265-0949	East end of unmarked road, 200 ft S of intersection SC 219 and CR 1739/Tract J	Residence	ca.1920	Ineligible Removed	Jackson 1986; Adams *et al.* 2011b
U/265-0953	800-ft NW of Ernest Scott Road & Tolbert Road/Tract D-East	Residence	c. 1915	Ineligible	Jackson 1986

Resource Number	Address/Tract	Type	Date of Construction	NRHP and Management Recommendation	Reference
U/265-0954	7326 Old Jefferson Hwy, SR 265/Tract D-East	Residence	c. 1920	Ineligible	Jackson 1986
U/265-0964	East side Gold Mine Hwy/ U.S. 601, 0.3 mi south of intersection of U.S. 601 and CR 1723/Tract B	Residence	c. 1920	Ineligible	Jackson 1986
U/265-1105	4752 Ernest Scott Road/ Tract G	Residence	c. 1961	Ineligible	Adams *et al.* 2011b
U/265-1106	4658 Ernest Scott Road/ Tract N and Tract O	Residence	c. 1950	Ineligible	Adams *et al.* 2011b
U/265-1109	4350 Ernest Scott Road/ Tract D-East	Residence	c. 1960	Ineligible	Adams *et al.* 2011b
U/265-1110	4334 Ernest Scott Road/ Tract D-West	Residence	c. 1945	Ineligible	Adams *et al.* 2011b
U/265-1113	4557 U.S. 601/Tract A	Residence	c. 1955	Ineligible	Adams *et al.* 2011b
U/265-1114	4572 U.S. 601/Tract A	Residence	c. 1955	Ineligible	Adams *et al.* 2011b
U/265-1115	4596 U.S. 601/Tract A	Residence	c. 1955	Ineligible	Adams *et al.* 2011b

Signatures on Historic Maps and Early Aerial Photographs: No structure signatures or features are shown in or adjacent to the project tracts on 19th century maps. The Mills Atlas of 1825 indicates the place name of "Haile" southwest of the Project Area and Civil War activity is noted in the northwest part of the area (Tract A) (Davis *et al.* 1983, Plate 80, No.5). The 1939 Lancaster County Highway map shows one structure northeast of Tract I and four structures along Ernest Scott Road (Figure 6.1). Two of these signatures are in Tract D-East (east of Ernest Scott Road); one appears to correspond to previously recorded structure U/265-0953 and the second is at the north boundary of the tract. The 1958 county highway map shows 13 structures along Ernest Scott Road and includes: two within Tract D-East (discussed above); one within Tract D-West; one within Tract E; one within Tract F; two within Tract G; one within Tract N; and one within Tract J (Figure 6.1). The four remaining structures were recorded adjacent to the project tracts. Signatures of the structures seen on the 1958 map were also noted on the 1966 aerial photograph of the area.

6.2 Archeological Field Survey

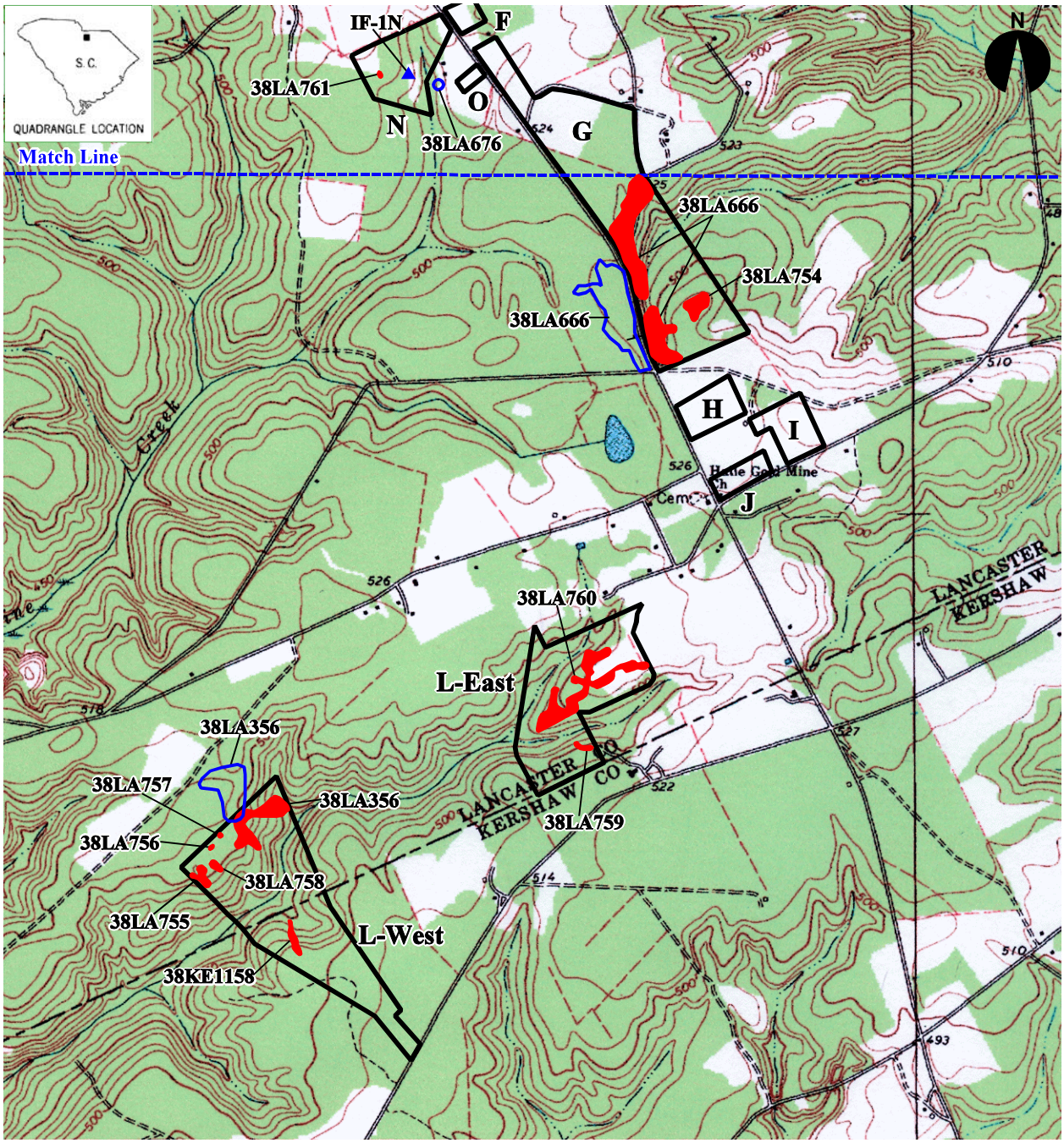
The archeological field survey was conducted during the period of November 9 through December 20, 2011. The tracts were easily accessed from Catawba Road, Haile Gold Mine Road, Ernest Scott Road, and U.S. 601. Thirty-three archeological sites and 13 isolated finds were identified during the current field survey (Figures 6.2a and b). The site narratives describe site location and setting, internal structure, cultural materials, and NRHP eligibility recommendations. Site sketches and photographs, and when appropriate artifact scans, accompany the narratives.



Map Reference: 7.5 Minute USGS Quadrangle
Kershaw, South Carolina (1969)

Scale
0 610 meters
0 2000 feet

Figure 6.2a Cultural Resources Location Map



Project Areas
Archeological Site
Isolated Find
Previously Recorded Archeological Site

Map Reference: 7.5 Minute USGS Quadrangles
Kershaw, South Carolina (1969) and
Mount Pisgah (1967), South Carolina

Scale
0 610 meters
0 2000 feet

Figure 6.2b Cultural Resources Location Map

6.2.1 Previously Recorded Site 38LA356

Southeastern Archaeological Services Findings (Pluckhahn and Braley 1993:124): Site 38LA356 was first identified by Southeastern Archaeological Services as a prehistoric lithic scatter on a ridge crest overlooking spring heads and wetlands approximately 150 m to the south. The site dimensions were estimated to be 150-by-150 m in area.

Of the 21 shovel tests excavated, eleven were positive. Lithic artifacts (n=66) were recovered from depths up to 85 cmbs. This included 62 pieces of quartz (n=56) and metavolcanic debitage (n= 6), one quartz core, one quartz utilized flake, a quartz Guilford PP/K, and three pieces of FCR. The Guilford point dates the site to the latter half of the Middle Archaic period.

Pluckhahn and Braley (1993) concluded that based on the presence of sub-plow zone archeological deposits, the site may retain intact cultural features and/or significant artifact distribution patterns. Site 38LA356 was considered unassessed for NRHP eligibility status and Phase II archeological evaluation was recommended.

Current Survey Findings: The northwest boundary of 38LA356 abuts or slightly overlaps with the southeastern boundaries of the site as originally delineated by Pluckhahn and Braley (1993). The portion of 38LA356 within Tract L-West is located on the edge of a broad ridge and adjacent terraced side slope (figures 6.2b and 6.3). The site has been subjected to multiple episodes of grading as evidenced by push piles scattered across the landform. Site 38LA356 overlooks a low-order stream to the east-southeast. Due to the presence of a modern home with six outbuildings, site vegetation is limited to grasses, invader weeds and isolated hardwoods. The currently delineated portion of 38LA356 measures approximately 240 by 150 m, northeast-southwest, based on the excavation of 16 positive and 28 negative shovel tests; two locations were not excavated in areas exceeding 20 percent slope. Surface visibility is variable due to previous disturbances and artifacts were recovered from two surface locations.

Soils at the site are classified as Blanton Sand; shovel test profiles display profiles of 20 cm of dark grayish-brown loamy sand plow zone over 55 cm of light yellowish-brown loamy sand. Substrate continued to at least 100 cmbs in some areas and consisted of yellowish-brown sandy loam.

Within the current site boundaries, 163 prehistoric artifacts were collected; 88 came from shovel testing and 75 from two surface collections (Table 6.3). Surface collections were made in the area immediately surrounding shovel test T-3/9.5 that produced one sherd, and in a 30-by-30 m area between shovel tests T-3/9 and T-4/9 yielding prehistoric lithics (n=70) and what appears to be recent/historic oyster shell fragments (n=4). The 17 shovel tests yielded lithics (n=82) and ceramics (n=6). Overall, 38LA356 produced debitage [thinning flakes (n=10); reduction flakes (n=24); flake fragments (n=111); shatter (n=3)], one core, one biface fragment, one Yadkin PP/K base, one piece of FCR, and ceramics [Deptford Cord-marked (n=5); one

Facing North

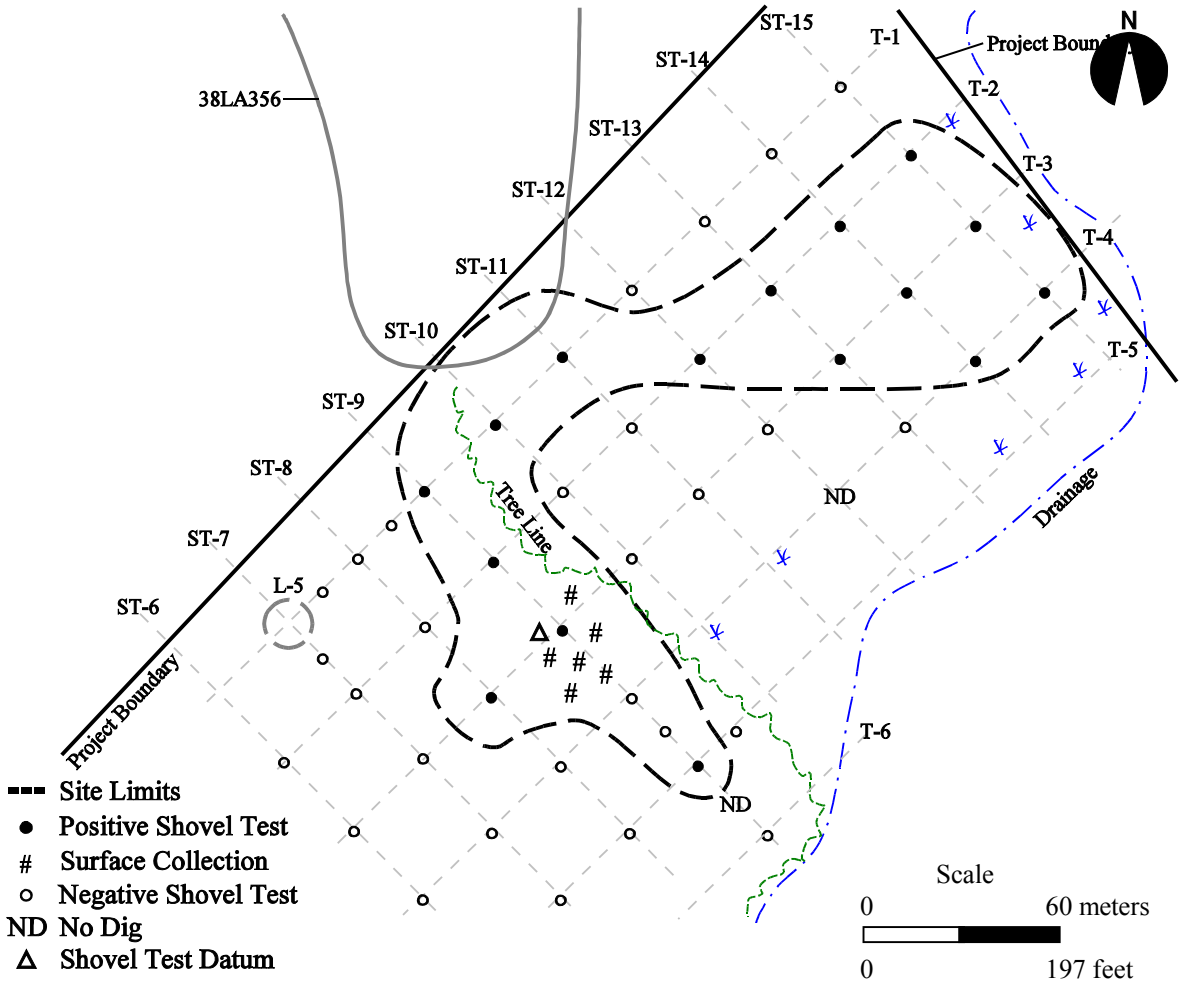


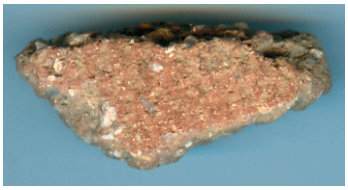
Figure 6.3 Site 38LA356, Photo and Sketch Map

Table 6.3 Site 38LA356 Artifact Inventory

Tract	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	
Transect/Shovel Test, Surface (S)	1/9	1/10	1/11	2/9	2/12	2/13	2/14	2/15	3/8	3/9	S	3/13	3/14	3/15	4/14	4/15	5/9	S	
Shovel Test Depth (cm)	80	90	90	80	60	70	60	30	100	90		100	100	90	70	90	50		
Artifact Depth (cm)	40-60	10-70	20-40	20-60	20-60	20-70	20-60	10-30	0-70	30-50		30-90	20-70	10-70	10-70	40-70	40-50		
Bag Number	287	288	289	290	291	292	293	294	298	299	300	301	302	303	306	307	309	321	**Total**
PREHISTORIC																			
Lithic Reduction																			
Thinning Flake, quartz						1							1						**2**
rhyolite							1		1			2		3					**7**
metavolcanic		1																	**1**
Reduction Flake, quartz		1																16	**17**
rhyolite												3			1			1	**5**
metavolcanic									2										**2**
Flake Fragment, quartz	1	3	5	4	2			1	12	2		2	6	1	2	2		48	**91**
rhyolite						1			6								2		**9**
chert													3						**3**
slate					1														**1**
metavolcanic		4							3										**7**
Shatter, quartz																		3	**3**
Core/Biface Manufacture																			
Core, quartz						1													**1**
Biface Fragment, quartz																		1	**1**
Formal Tools																			
PP/K, quartz-Yadkin																		1	**1**
Cooking/Containment																			
Ceramic, Deptford cord marked		5																	**5**
unknown/eroded decorated											1								**1**
eroded														1					**1**
FCR, quartz		1																	**1**
Prehistoric Total	**1**	**15**	**5**	**4**	**3**	**3**	**1**	**1**	**24**	**2**	**1**	**7**	**10**	**5**	**3**	**2**	**2**	**70**	**159**
HISTORIC																			
Flora/Fauna																			
Shell																		4	**4**
Historic Total																		**4**	**4**
GRAND TOTAL	**1**	**15**	**5**	**4**	**3**	**3**	**1**	**1**	**24**	**2**	**1**	**7**	**10**	**5**	**3**	**2**	**2**	**74**	**163**

unknown eroded decorated; one eroded]. The survey artifact inventory demonstrates that lithic reduction, biface manufacture, hunting/piercing/cutting, hot-rock cooking and ceramic cooking/ containment activities occurred at 38LA356. The Yadkin PP/K base and Deptford ceramics indicate a Middle Woodland presence at the site (Figure 6.4).

PP/K "Yadkin", Surface



Deptford Cord-marked, T-1/10

(Actual Size)

Figure 6.4 Site 38LA356, Selected Artifacts

Lithic materials include both clear/milky white and opaque/white coarse-grained quartz (n=116), rhyolite (n=21), metavolcanic (n=10), chert (n=3), and slate (n=1). Two shovel tests at 38LA356 produced 15 or more artifacts, most of which was debitage. Shovel test T-1/10 contained a mix of metavolcanic (n=5) and quartz (n=4) debitage along with the Deptford ceramics (n= 5). At shovel test T-3/8, there was a mix of quartz (n=12), rhyolite (n=7) and metavolcanic (n=5) debitage. A minor debitage mode (n=10) was also noted at shovel test T-3/14 where quartz (n=7) and chert (n=3) were commingled. In addition to the lithics, shovel test T-1/10 contained the Deptford Cord-marked wares (n=5) and the only piece of FCR from the site. This shovel test may have sampled a pot break or, considering the FCR, a cooking-related activity area. In sum, shovel tests T 1/10, T-3/8, and possibly T-3/14 may have sampled activity loci, one of which probably dates to the Middle Woodland period.

Site 38LA356 has been disturbed from land-clearing activities, grading activities, cultivation, and associated slope erosion. However, sub-plow zone archeological deposits are present and could retain some degree of depositional integrity and contextual clarity relating to the Middle Woodland occupation detected during the current survey, or possibly the Middle Archaic component recorded by Pluckhahn and Braley (1993). For these reasons, the NRHP eligibility status of Site 38LA356 under Criterion (d) can not yet be determined. Regarding the portion of 38LA356 defined under the current study, Phase II evaluation is recommended for the area around and between shovel tests T-1/10 and T-3/8 (see Figure 6.3; area of approximately 120 by 40 m north-south) to determine if the prehistoric deposits retain intact features, middens, subsistence remains, temporally sensitive artifacts/datable biotic materials, and other possible features that are likely to significantly expand the knowledge of prehistoric settlements and/or use of the region. Evaluation efforts should include limited additional shovel testing and structured test unit excavations.

6.2.2 Previously Recorded Sites 38LA641 and 38LA622

New South Associates Findings (Adams et al. 2011a:128-31): Site 38LA641 was first identified by New South as a multi-component site containing Archaic to Woodland components as well as the early-to-middle 20th century Clyburn House and farm (Resource No. U/57-0951). As originally described, this site was situated west of U.S. 601 on a level broad ridge formation that wrapped around several spring heads. The

site extended southward outside of New South Associates' Project Area, but as defined within their Project Area, the site measured approximately 700 by 450 m in size.

Out of the 306 shovel tests excavated by New South at 38LA641, 77 contained artifacts. Prehistoric lithic artifacts included quartz flakes (n=261), quartz shatter (n=39), quartz flake tool (n=1), a worked quartz cobble (n=1), quartz cores (n=3), a quartz uniface (n=1), metavolcanic flakes (n=42), and a sandstone core (n=1). In addition, 11 prehistoric ceramics were recovered including one possible Cape Fear Cord-marked sherd. Ceramics were concentrated in the southeastern and southwestern portions of the site adjacent to the Project Area's southern boundary. One sherd, as well as a Woodland Spike PPK, were identified in the southwest cluster.

Historic artifacts associated with 38LA641 included kitchen, architectural, miscellaneous and personal materials confined to the upper 30 cmbs of Stratum I. Specifically, kitchen related artifacts included clear glass (n=11), amethyst glass (n=3), amber glass (n=3), cobalt blue glass (n=1), green glass (n=1), light blue glass (n=1), canning seal (n=1), metal lid (n=1), plain whiteware (n=9), plain ironstone (n=4), blue sponge decorated ironstone (n=1), alkaline glazed stoneware (n=1), and blue-edged whiteware with scalloped unimpressed rim (n=1). Architectural related artifacts consisted of brick fragments (n=2), window glass (n=2), cut nails (n=6), and unidentifiable nail fragments (n=2). Miscellaneous material included a piece of unidentifiable corroded iron fragment, while personal material consisted of a brass cufflink stud.

Less than 100 m west of Site 38LA641's western boundary, New South recorded 38LA622, a quartz quarry with a Woodland component situated on a ridge side slope along the southern edge of their Project Area. Measuring approximately 250 by 70 m in size, the site was delineated with 34 shovel tests, of which 15 (44 percent) contained artifacts. In addition to large quantities of quartz debitage recorded on the surface, the site also featured an outcrop of milky quartz that appeared to have been quarried. Associated artifacts consisted of quartz flakes (n=73), a quartz flake tool (n=1), quartz shatter (n=9), rhyolite flakes (n=2), and a Piedmont silicate Woodland Spike PPK (Adams *et al.* 2011a:89).

Adams *et al.* (2011a) documented 38LA641 as having indeterminate Archaic, Woodland, and early-to-middle 20th century components and recommended additional work to determine NRHP eligibility status. Adams *et al.* (2011a) recorded 38LA622 as a quartz quarry with a Woodland component and recommended additional work to determine NRHP eligibility.

Current Survey Findings: Based on shovel test delineation during the current field survey, the archeological deposits at Site 38LA622/641 abut the current project boundary to the north and are contiguous with those of both 38LA641 and 38LA622 (Figures 6.2a , 6.5, and 6.6). Thus, Site 38LA622/641 is the southern extension of both 38LA641 and 38LA622. Site 38LA622/641 covers a range of topography including a level broad ridge extending northward and eastward, a drainage associated with Camp Branch to the south, and

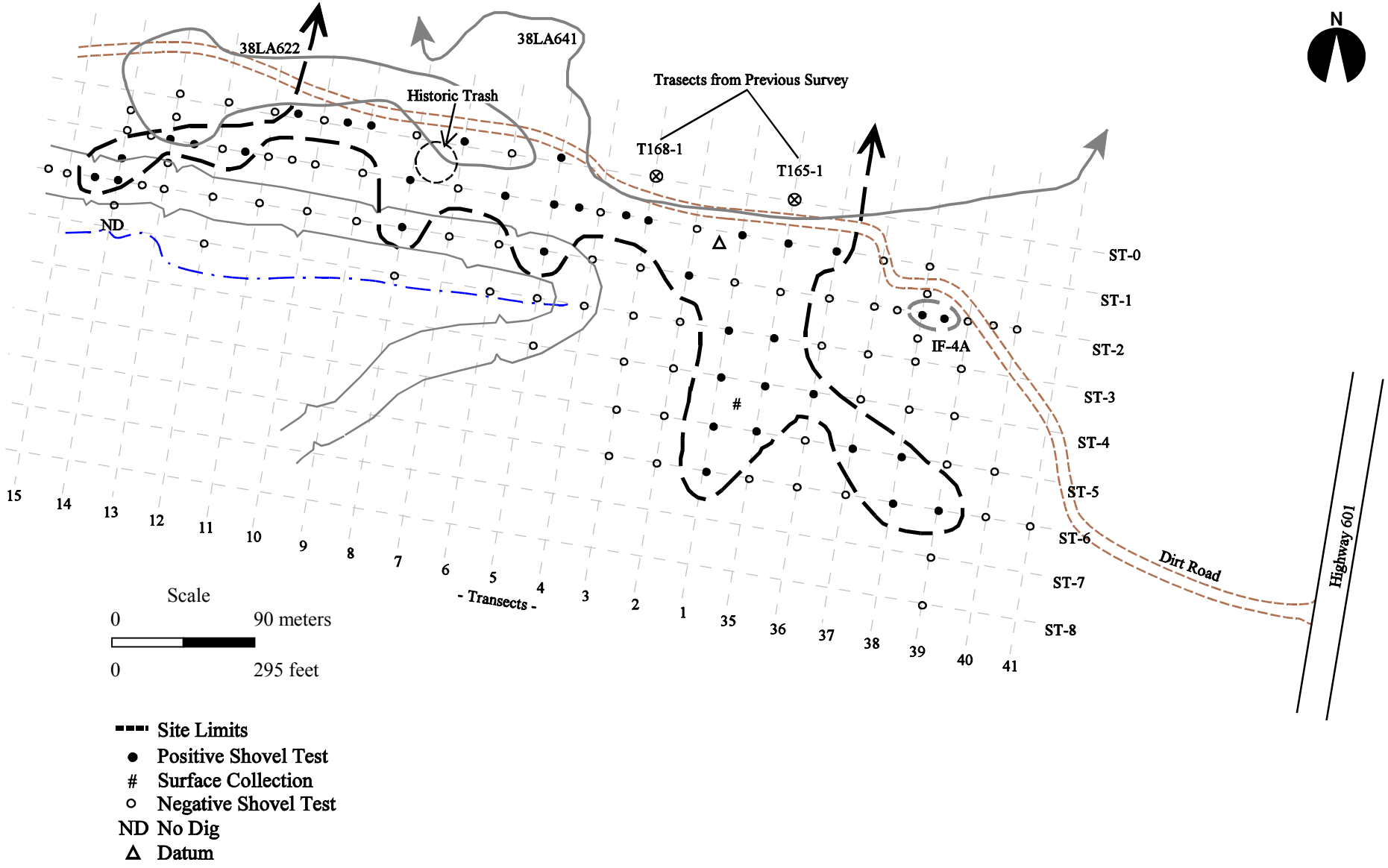


Figure 6.5 Site 38LA622/641, Sketch Map

View from Transect 7/0, Historic Trash Pile, Facing Southwest

General View of Site from Transect 39/2, Facing West

Figure 6.6 Selected Views of Site 38LA622/641

small ridge toes and a side slope to the west leading to Camp Branch. Camp Branch is located approximately 600 m from the center of Site 38LA622/641. Vegetation covering the site consists of regenerative loblolly pines, sweetgum, maple, scrub oaks, holly, vines, briers, and a variety of weedy shrubs. Berms, swales, and push piles were recorded along Transects 1 through 15, paralleling the northern project boundary and running westward downslope to Camp Branch. Site 38LA622/641 covers an area approximately 570 by 150 m, northwest to southeast, as delineated by 35 positive and 69 negative shovel tests, and one surface collection.

Blanton Sand is the predominate soil type at Site 38LA622/641; a typical site soil profile shows 20 cm of dark grayish-brown loamy sand plow zone, over 55 cm of light yellowish-brown loamy sand, over a yellowish-brown sandy loam substrate to at least 100 cmbs. Artifacts were recovered from 0 to 80 cmbs. Disturbances to the site consist of plowing and logging, and appear to have been confined to depths of approximately 20 cmbs. No distinct cultural features or archeological strata were observed during shovel testing.

Eighty-seven artifacts were collected during shovel testing and the surface collection (Table 6.4). Seventy-nine artifacts are prehistoric, eight historic. Prehistoric items include debitage [shatter (n=3), reduction flakes (n=8), thinning flakes (n=3), flake fragments (n=59)], one biface, one small triangular PP/K, and four ceramic sherds [Deptford Check-stamped (n=2); one residual; one eroded] (Figure 6.7). Raw lithic materials include locally available quartz (n=62), rhyolite (n=11), chert (n=1), and diabase (n=1). These artifacts indicate that lithic reduction, biface manufacture/ repair, cutting/ piercing, and cooking/ containment activities took place at Site 38LA622/641 during at least the Middle to Late Woodland period.

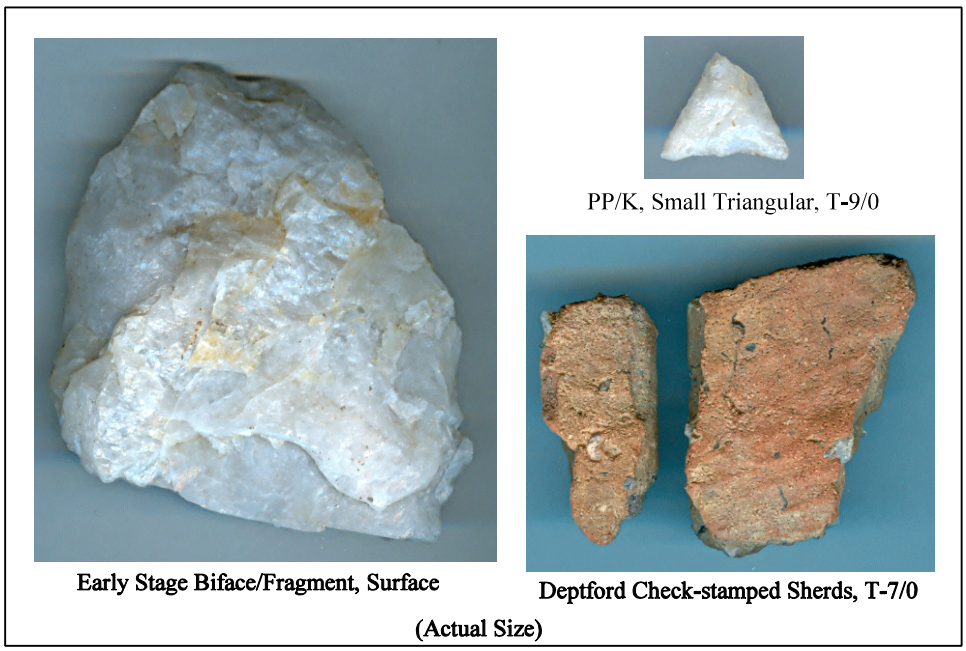


Figure 6.7 Site 38LA622/641, Selected Artifacts

Historic artifacts consist of plain whiteware (n=5), one piece of plain ironstone, one piece of clear bottle glass, and one cut nail. These materials are typical of the remnants of a late 19th or early 20th century house site or discard area.

Table 6.4 Site 38LA622/641 Artifact Inventory

Tract	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Transect/Shovel Test, Surface (S)	1/1	1/3	1/4	1/5	1/6	2/2	3/1	5/0	5/1	5/2	6/1	7/0	8/1	8/2	9/0	35/1	35/3	35/4	S
Shovel Test Depth (cm)	70	70	80	80	70	80	100	80	50	80	70	70	70	70	80	60	60	70	-
Artifact Depth (cm)	50-70	0-60	20-60	10-30	10-50	0-30	30-90	0-60	0-30	0-40	40-50	10-50	20-70	10-60	0-60	40-50	30-40	40-60	0
Bag Number	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110
PREHISTORIC																			
Lithic Reduction																			
Thinning Flake, quartz								1		1									
rhyolite																			
Reduction Flake, quartz							1					2							
rhyolite						1													
Flake Fragment, quartz	1	4	4	1	3		5		1		1	5	4	1	2	2			
rhyolite		1	1					2											
chert																			
diabase																	1		
Shatter, quartz																			
Core/Biface Manufacture																			
Early Stage Biface, quartz																			1
Formal Tools																			
PP/K, quartz - small triangular															1				
Cooking/Containment																			
Deptford check stamped												2							
residual sherd							1												
eroded																		1	
Prehistoric Total	**1**	**5**	**5**	**1**	**3**	**1**	**7**	**3**	**1**	**1**	**1**	**9**	**4**	**1**	**3**	**2**	**1**	**1**	**1**
HISTORIC																			
Whiteware, plain																			
Ironstone, plain																			
Bottle Glass, clear										1									
Nail, cut																			
Historic Total										**1**									
GRAND TOTAL	**1**	**5**	**5**	**1**	**3**	**1**	**7**	**3**	**1**	**2**	**1**	**9**	**4**	**1**	**3**	**2**	**1**	**1**	**1**

Table 6.4 Site 38LA622/641 Artifact Inventory - continued

Tract	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
Transect/Shovel Test, Surface (S)	35/5	36/1	36/4	37/5	38/5	38/6	39/6	13/1	14/2	3.5/1	4.5/1	9.5/0	10.5/0	11.5/1	12.5/1	14/1.5	14.5/2	
Shovel Test Depth (cm)	60	80	80	60	60	80	70	65	60	80	60	70	60	60	60	60	60	
Artifact Depth (cm)	20-30	40-60	10-30	0-20	0-20	30-40	30-60	0-25	0-20	10-40	0-10	20-60	10-50	10-30	10-30	10-20	10-20	
Bag Number	111	113	114	115	117	118	119	120	121	126	127	128	129	130	131	132	133	**Total**
PREHISTORIC																		
Lithic Reduction																		
Thinning Flake, quartz																		**2**
rhyolite				1														**1**
Reduction Flake, quartz													1				2	**6**
rhyolite												1						**2**
Flake Fragment, quartz		1				2	1	3	1	2		1	4	3				**52**
rhyolite										1								**5**
chert											1							**1**
diabase																		**1**
Shatter, quartz		1												1		1		**3**
Core/Biface Manufacture																		
Early Stage Biface, quartz																		**1**
Formal Tools																		
PP/K, quartz - small triangular																		**1**
Cooking/Containment																		
Deptford check stamped																		**2**
residual sherd																		**1**
eroded																		**1**
Prehistoric Total		**2**		**1**		**2**	**1**	**3**	**1**	**3**	**1**	**2**	**5**	**4**		**1**	**2**	**79**
HISTORIC																		
Whiteware, plain	1							1							3			**5**
Ironstone, plain			1															**1**
Bottle Glass, clear																		**1**
Nail, cut					1													**1**
Historic Total	**1**		**1**		**1**			**1**							**3**			**8**
GRAND TOTAL	**1**	**2**	**1**	**1**	**1**	**2**	**1**	**4**	**1**	**3**	**1**	**2**	**5**	**4**	**3**	**1**	**2**	**87**

Shovel testing revealed 13 positive test locations with sub-plow zone prehistoric deposits (Figure 6.5): T-1/1 (50 to 70 cm), T-1/4 (20-60 cm), T-3/1 (30-90 cm), T-6/1 (40-50 cm), T-8/1 (20-70 cm), T-35/1 (40-50 cm), T-35/3 (30-40 cm), T-35/4 (40-60 cm), T-36/1 (40-60 cm), T-38/6 (30-40 cm), T-39/6 (30-60 cm), and T-9.5/0 (20-60 cm). Of these, seven were located in the northern third of the site, adjacent to the New South Associates southern boundaries of 38LA641 and 38LA622. Prehistoric deposits became more shallow in the western part of Site 38LA622/641, where shovel tests sampled a long side slope descending toward Camp Branch.

Historic artifacts were noted at four locations within Site 38LA622/641, but the most significant of these is an historic trash dump between shovel test locations T-7/0 and T-8/1. Machine-made bottles, jars, and glass wares as well as tin cans, buckets, and wash basins were strewn across a 30-by-30-m area at this location (Figures 6.5 and 6.6-top). The trash dump is likely associated with a road trace to the immediate north. The 1969 USGS Kershaw quad shows the road trace running roughly east-to-west through the northern portion of Tract A (Figure 6.2a). The road continues northeastward bisecting the central southern portion of Site 38LA641 until it connects to a secondary road that winds its way northward to the Clyburn house and farm (Resource U/57-0951)(Adams *et al.* 2011a).

Overall, archeological deposits at Site 38LA622/641 have been disturbed by logging, clearing, cultivation, and related erosion. This is most apparent in the ruts, erosional gullies, and push piles in the northern part of the site, and the shallow archeological deposits (often 20 cmbs or less) on the side slope in the western part of the site. However, the central part of Site 38LA622/641 exhibits sub-plow zone archeological deposits, the integrity of which is currently unknown. In addition, there are minor prehistoric artifact modes at shovel tests T-7/0 (n=9) and T-3/1 (n=7), and Site A-1 is part of two much larger sites recommended for Phase II testing by Adams *et al.* (2011a). For these reasons, the eligibility status of Site 38LA622/641 under NRHP Criterion (d) can not yet be determined.

Phase II archeological evaluation is recommended for the prehistoric component at 38LA622/641 in the north central part of the site. More specifically, the area recommended for testing is around and between shovel tests T-7/0 and T-1/4 (see Figure 6.5; an area of approximately 235 by 45 m west/northwest-southeast). Testing is recommended to determine if the prehistoric deposits at this location retain intact features, middens, subsistence remains, temporally sensitive artifacts/datable biotic materials, and/or other remains that are likely to significantly expand knowledge on the prehistoric settlement and/or use of the study region. It is advised that Phase II evaluation include limited additional shovel testing to further identify potentially productive areas within Site 38LA622/641, followed by limited structured test unit excavations.

6.2.3 Previously Recorded Site 38LA663

New South Associates Findings (Adams et al. 2011b:49): Site 38LA663 was first identified by New South as a small lithic and ceramic scatter located along the upper edge of a side slope overlooking a low order

stream approximately 60 m south-southeast of the site. Adams *et al.* (2011b:49) stated that one shovel test in the northern part of 38LA663 produced fabric-impressed sherds identified as Cape Fear (n=4); rhyolite (n=2) and quartz (n=4) debitage were recovered from three additional positive shovel tests. Adams *et al.* (2011b:49) noted that the majority of 38LA663 was disturbed by logging and modern activities. Since a piece of clear bottle glass fragment was recorded at 65 to 85 cmbs in one of their shovel tests, the vertical integrity of the site was considered questionable. Given the overall level of recent disturbances from logging and land-clearing, New South recommended 38LA663 ineligible for the NRHP.

Current Survey Findings: During the current survey, 38LA663 was encountered along the northern boundary of Tract D-East (Figures 6.2a and 6.8). RSWA excavated two positive and six negative shovel tests along the south side of the site, delineating an area of 30 by 20 m oriented northeast-southwest. No artifacts were observed on the surface. The New South boundary is within 30 m of the RSWA boundary and therefore, considered the same site. The site is in a full canopy of regenerative pine/hardwoods with a moderate undergrowth of vines, shrubs, and dominant tree saplings. A road trace runs parallel with the expanded southern border of the site, as well as with the slope descending southward and eastward.

Soils at 38LA663 are classified as Blanton Sand; shovel test profiles typically display 20 cm of grayish-brown, loamy sand plow zone over with 60 to 80 cm of yellowish-brown loamy sand. The substrate consists of a strong brown sandy loam extending to at least 100 cmbs. Artifacts were recovered at 30 to 60 cmbs. No distinct cultural features or archeological strata were observed during shovel testing.

Opaque/white coarse-grained quartz flake fragments (n=2) were taken from shovel test T-29/7, while one body sherd, very similar to Dunlap fabric impressed ware, was recovered from shovel test T-29/6.5 (Figure 6.9; Table 6.5). This sherd is similar to the fabric-impressed ceramics found during the New South survey. However, it is noted that the Cape Fear series is not mentioned in regional overviews covering the South Carolina Piedmont (Benson 2006) or recent Phase II work at Haile Gold Mine (Cable and Price 2009, 2010). Rather, the Dunlap and Deptford ceramic series represent Early and Middle Woodland in these studies. These materials indicate that short-term lithic reduction and cooking/containment-related activities took place at the location during the Early Woodland period.

Dunlap Fabric Impressed Sherd
T-29/6.5 (Actual Size)

Figure 6.9 Site 38LA663, Selected Artifact

Table 6.5 Site 38LA663 Artifact Inventory

Tract	D	D	
Transect/Shovel Test, Surface (S)	29/7	29/6.5	
Shovel Test Depth (cm)	70	70	
Artifact Depth (cm)	30-60	30-60	
Bag Number	277	278	**Total**
Lithic Reduction			
Flake Fragment, quartz	2		**2**
Cooking/Containment			
Dunlap fabric impressed		1	**1**
Total	**2**	**1**	**3**

The portion of 38LA663 surveyed during the current study has been impacted by land

Facing West

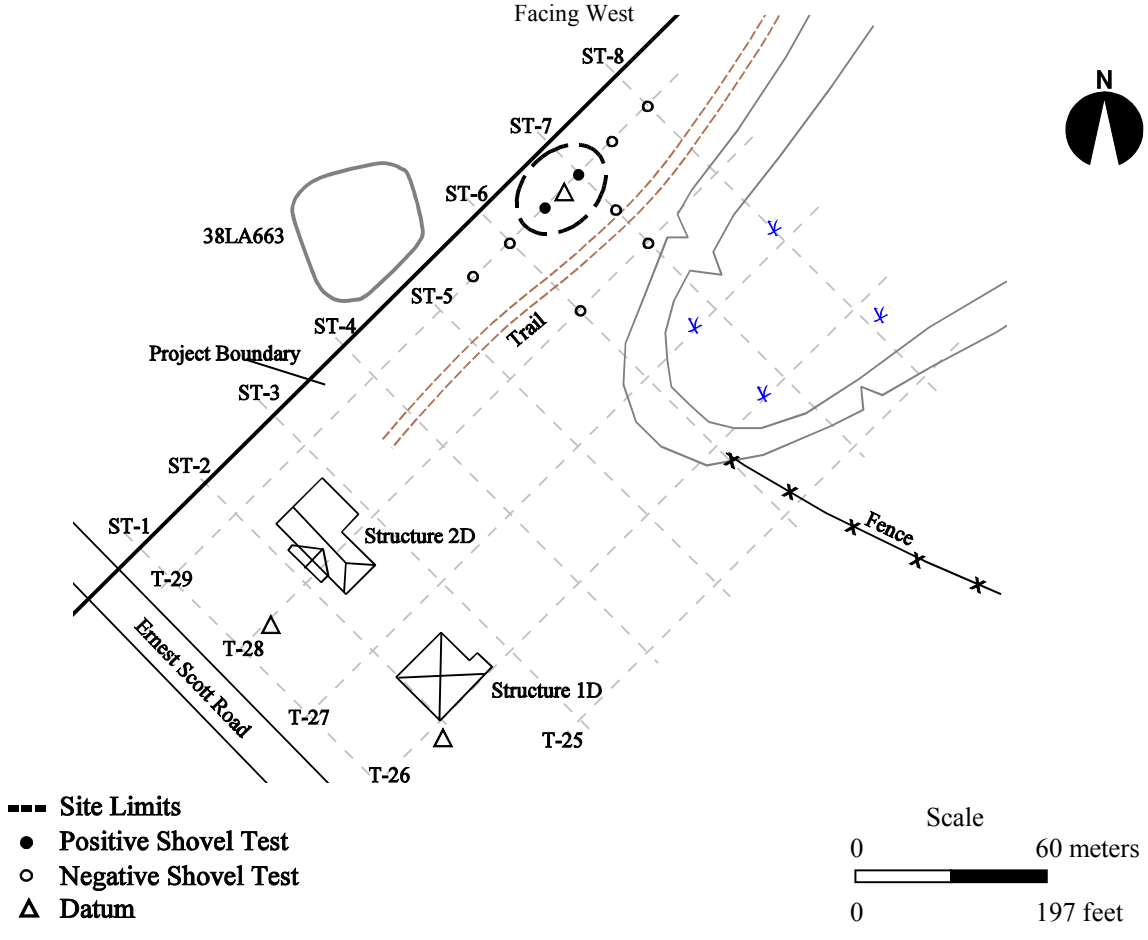


Figure 6.8 Site 38LA663, Photo and Sketch Map

clearing activities, cultivation, modern logging and related soil erosion. Because of this and the low artifact density/diversity, it is unlikely that the portion of 38LA663 within Tract D-East retains information that will advance understanding of the prehistoric settlement and use of the study region. Based on RSWA's survey findings and those presented by Adams' *et al.* (2011b), 38LA663 is recommended ineligible for the NRHP under Criterion (d). No further work is advised for this site.

6.2.4 Site 38LA666

6.2.4.1 Previously Recorded Site 38LA666, (Locus1)

New South Associates (Adams *et al.* 2011b:54) described 38LA666 as a possible Late Archaic and Woodland site with a middle 20th century component. In the current report, this previously recorded portion of the site is referred to as "Locus 1". Vegetation at the site varied from silvicultured pines in the north to a mixed pine/hardwood forest in the south, with an understory of vines, greenbrier, holly, and saplings. The site size was recorded as approximately 450 by 180 m. According to the 1939 and 1958 Lancaster County highway maps, and 1938 aerial photography, a structure appeared at the location of 38LA666, Locus 1 during at least the span of 1938 to 1958. The only intact, above-ground structural remains recorded by Adams *et al*. (2011b:54) were sections of brick wall identified in an area that also held scrap metal and rusted abandoned cars.

New South Associates excavated 82 shovel tests yielding 39 artifacts. The majority of artifacts recovered consisted of prehistoric lithics (n=239) as well as a residual sherd (n=1), with tools including bifaces (n=2), possible scrapers (n=3), cores (n=2), one non-diagnostic PPK, and a possible Savannah River Stemmed PP/K. Historic architectural remains included common wire nails or nail fragments (n=10), indeterminate bricks (n=3), flat glass fragments (n=2), a tack, and a hinge. Kitchen artifacts consisted of container glass fragments (n=32), one plain whiteware sherd, an unidentifiable white-bodied earthenware sherd, and an unidentifiable ceramic. Other historic artifacts included a brass button, a pulley, a section of non-electrical wire, unidentifiable iron/steel (n=11), iron plates (n=3), a piece of burned glass, an unidentifiable bone or horn fragment, and plastic of indeterminate use (n=2). Most of the historic artifacts were found within the upper 20 cmbs. These artifacts were likely associated with the house that was present from the 20th century highway maps and aerial photograph.

Adams *et al*. (2011b:56) stated that the prehistoric component at 38LA666, Locus 1 exhibited sub-plow zone deposits and that the site contained at least one prehistoric feature at shovel test T-378/2.5. Site 38LA666, Locus 1 was believed to possess the research potential necessary to address research questions concerning prehistoric lifeways and to add to the understanding of the Archaic/Woodland transition at the Sandhills/Piedmont interface. The site's NRHP eligibility status was unassessed, and additional work was recommended for the eastern portion of the site, adjacent to the west side of Ernest Scott Road. Site

38LA666, Locus 1 aligns with 38LA666, Locus 2 and 38LA666, Locus 3 in Tract G, which lies immediately east of Ernest Scott Road. These portions of 38LA666 are discussed below.

6.2.4.2 Site 38LA666, Locus 2

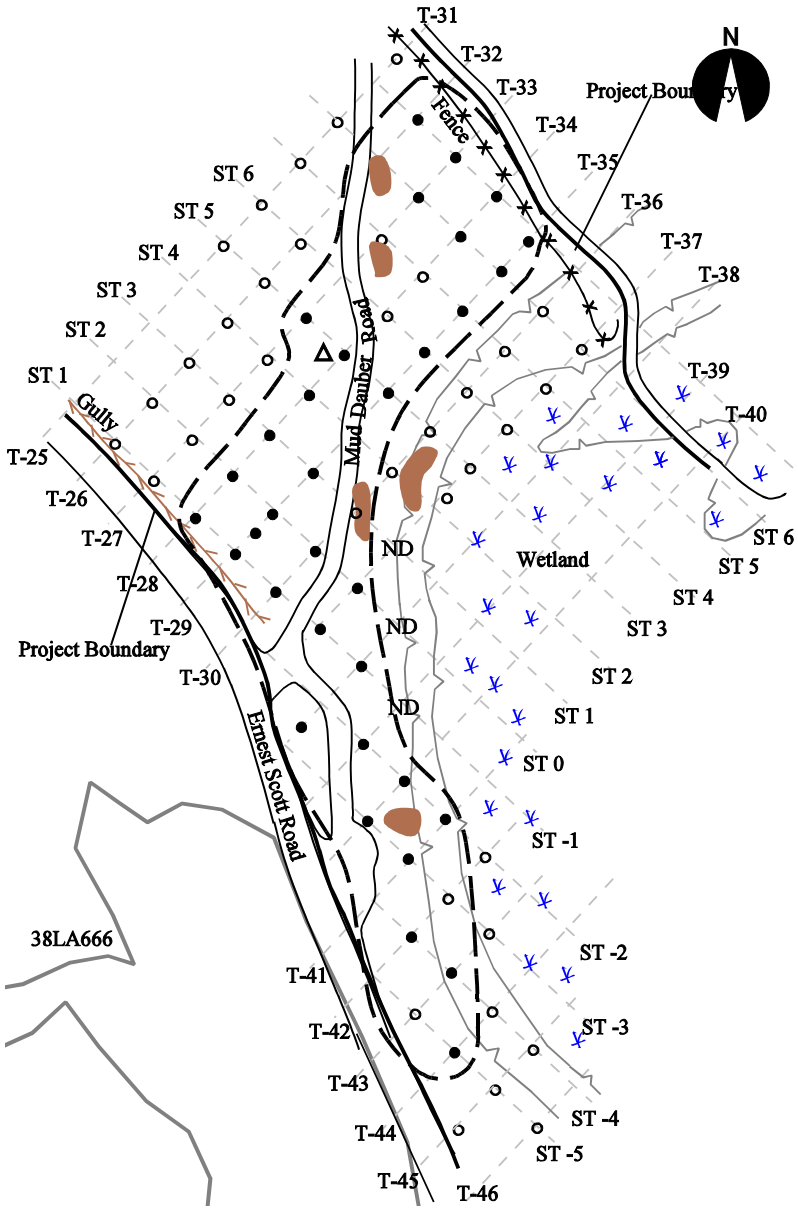
Site 38LA666, Locus 2 is a large prehistoric lithic scatter with a minor ceramic component; the site also has a historic component. This site is located along the edge of an upland flat east of Ernest Scott Road in Tract G (Figures 6.2b and 6.10). Site vegetation includes a pine/hardwood canopy and undergrowth composed of vines, grasses, and pine/hardwood saplings. The closest natural water source is a spring-fed wetland to the immediate east. The site measures approximately 545 by 105 m, north-south, based on the excavation of 34 positive and 38 negative shovel tests. Because of slope greater than 20 percent, shovel tests were not excavated at three locations adjacent to the wetlands. Surface inspections produced no artifacts.

Soils are classified as Blanton Sand, Wagrum Sand, or Worsham Sand. The latter series is prevalent around the wetlands, with the Worsham soils formed from colluvium and/or clayey alluvium in depressions along wetlands. Blanton Sand is found along the edge of the upland flat. Except in areas with Worsham soil, shovel test profiles average 15 to 20 cm of grayish-brown loamy sand over light yellowish-brown sand sand terminating at 50 to 70 cmbs. Substrate consists of friable, strong brown, sandy clay loam extending to depths beyond 100 cmbs. Artifacts were recovered from 0 to 90 cmbs. No cultural features or distinct artifact-bearing deposits were noted during shovel testing.

Site 38LA666, Locus 2 produced 272 prehistoric and 28 historic artifacts (Table 6.6). Prehistoric materials include lithics (n=268) and ceramics (n=4). Lithic artifacts were manufactured from both clear/milky white and opaque/white coarse-grained quartz (n=199), rhyolite (n=66), metavolcanic (n=1), chert (n=1), and diabase (n=1). The prehistoric assemblage consists of debitage [thinning flakes (n=17); reduction flakes (n=35); flake fragments (n=208); shatter (n=1)], cores/bifaces [core (n=1); early stage biface (n=3); biface fragment (n=1)], one expedient scraping tool, one Randolph PP/K, and sand-tempered ceramics [plain (n=2); eroded (n=2)] (Figure 6.11). These materials show that lithic reduction, core/biface manufacture, light faunal processing/scraping, hunting/piercing/cutting and cooking/

Figure 6.11 Site 38LA666, Locus 2, Selected Artifacts

Facing North



Scale

0 105 meters

0 344 feet

- Site Limits
- Positive Shovel Test
- Negative Shovel Test
- Push Pile
- ND No Dig
- Datum

Figure 6.10 Site 38LA666, Locus 2, Photo and Sketch Map

Table 6.6 Site 38LA666, Locus 2 Artifact Inventory

Tract	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
Transect/Shovel Test, Surface (S)	27/5	28/5	28/4	28/3	28/2	28/1	29/1	29/1.5	29/2	29/3	30/1	30/2	32/2	33/2	33/3	34/3	34/4	35/1	35/2
Shovel Test Depth (cm)	80	80	80	80	80	70	80	80	80	80	70	80	100	90	90	100	100	80	80
Artifact Depth (cm)	40-65	50-70	20-70	10-30	10-70	10-40	50-70	40-50	75-80	50-70	20-50	10-50	50-70	40-50	50-70	40-70	40-60	40-60	20-60
Bag Number	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	150	151	152	153
PREHISTORIC																			
Lithic Reduction																			
Thinning Flake, quartz								1											
rhyolite																		1	4
Reduction Flake, quartz			5															1	
rhyolite													1		1		1	1	3
metavolcanic	1																		
Flake Fragment, quartz	1	2	6	2	5	7	1		1	4	2					10	3	1	11
rhyolite													2	1		3		1	13
chert																			
Shatter, quartz																			
diabase																			
Core/Biface Manufacture																			
Core, quartz																			1
Early Stage Biface, quartz																			
rhyolite																			
Biface Fragment, quartz																			
Expedient Tools																			
Flake Tool, rhyolite-scraping																		1	
Formal Tools																			
PPK, rhyolite-Randolph																			1
Cooking/Containment																			
Ceramic, plain																2			
eroded																			
Charcoal											P								
Prehistoric Total	**2**	**2**	**11**	**2**	**5**	**7**	**1**	**1**	**1**	**4**	**2**		**3**	**1**	**1**	**15**	**4**	**6**	**33**

Table 6.6 Site 38LA666, Locus 2 Artifact Inventory - continued

Tract	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
Transect/Shovel Test, Surface (S)	27/5	28/5	28/4	28/3	28/2	28/1	29/1	29/1.5	29/2	29/3	30/1	30/2	32/2	33/2	33/3	34/3	34/4	35/1	35/2
Shovel Test Depth (cm)	80	80	80	80	80	70	80	80	80	80	70	80	100	90	90	100	100	80	80
Artifact Depth (cm)	40-65	50-70	20-70	10-30	10-70	10-40	50-70	40-50	75-80	50-70	20-50	10-50	50-70	40-50	50-70	40-70	40-60	40-60	20-60
Bag Number	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	150	151	152	153
HISTORIC																			
Kitchen/Subsistence																			
Whiteware, plain																			
Bottle Glass, clear																			
amber																			
Architectural/Structural																			
Nail, cut																			
wire																			
Brick Fragment, unidentifiable						1						2							
Roofing shingle																			
Miscellaneous																			
Unidentifiable, iron																			
Historic Total						**1**						**2**							
GRAND TOTAL	**2**	**2**	**11**	**2**	**5**	**8**	**1**	**1**	**1**	**4**	**2**	**2**	**3**	**1**	**1**	**15**	**4**	**6**	**33**

Table 6.6 Site 38LA666, Locus 2 Artifact Inventory - continued

Tract	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	
Transect/Shovel Test, Surface (S)	35/3	35/4	35/5	37/(-)1	37/0	38/(-)2.5	38/(-)1	39/(-)2	40/(-)2	40/(-)3	41/(-)2	41/(-)3	42/(-)4	43/(-)4	44/(-)5	
Shovel Test Depth (cm)	90	80	90	100	80	110	100	70	100	90	70	50	90	70	40	
Artifact Depth (cm)	10-70	0-20	30-50	40-70	0-60	40-70	0-90	0-40	50-70	20-80	20-40	0-40	50-70	30-40	0-10	
Bag Number	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	**Total**
PREHISTORIC																
Lithic Reduction																
Thinning Flake, quartz			1							4						**6**
rhyolite	2			1			3									**11**
Reduction Flake, quartz	2				4		2			4		4	1			**21**
rhyolite						1	2	1								**13**
metavolcanic																**1**
Flake Fragment, quartz	2				31	3	10	7	2	21	1	33	1	1	1	**169**
rhyolite	7		1	4	1	1		2				1		1		**38**
chert					1											**1**
Shatter, quartz																
diabase	1															**1**
Core/Biface Manufacture																
Core, quartz																**1**
Early Stage Biface, quartz					1											**1**
rhyolite				1		1										**2**
Biface Fragment, quartz													1			**1**
Expedient Tools																
Flake Tool, rhyolite-scraping																**1**
Formal Tools																
PPK, rhyolite-Randolph																**1**
Cooking/Containment																
Ceramic, plain																**2**
eroded					2											**2**
Charcoal																**P**
Prehistoric Total	**14**		**2**	**6**	**40**	**6**	**17**	**10**	**2**	**29**	**1**	**38**	**3**	**2**	**1**	**272**

Table 6.6 Site 38LA666, Locus 2 Artifact Inventory - continued

Tract	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	
Transect/Shovel Test, Surface (S)	35/3	35/4	35/5	37/(-)1	37/0	38/(-)2.5	38/(-)1	39/(-)2	40/(-)2	40/(-)3	41/(-)2	41/(-)3	42/(-)4	43/(-)4	44/(-)5	
Shovel Test Depth (cm)	90	80	90	100	80	110	100	70	100	90	70	50	90	70	40	
Artifact Depth (cm)	10-70	0-20	30-50	40-70	0-60	40-70	0-90	0-40	50-70	20-80	20-40	0-40	50-70	30-40	0-10	
Bag Number	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	**Total**
HISTORIC																
Kitchen/Subsistence																
Whiteware, plain		1														**1**
Bottle Glass, clear					3		2	3								**8**
amber							2									**2**
Architectural/Structural																
Nail, cut		4														**4**
wire							2									**2**
Brick Fragment, unidentifiable					1		1									**5**
Roofing shingle							5									**5**
Miscellaneous																
Unidentifiable, iron							1									**1**
Historic Total		**5**			**4**		**13**	**3**								**28**
GRAND TOTAL	**14**	**5**	**2**	**6**	**44**	**6**	**30**	**13**	**2**	**29**	**1**	**38**	**3**	**2**	**1**	**300**

containment activities took place at 38LA666, Locus 2. Since Randolph points generally appear in the archeological record toward the end of the Late Woodland period and continue into protohistoric times, 38LA666, Locus 2 could have been occupied periodically for at least a span of 800 years.

High lithic artifact density (i.e., 15 or more artifacts) was noted at six shovel test stations (T-34/3, T-34/4, T-35/2, T-37/0, T-38/-1, T-41/-3; Figure 6.10; Table 6.6). Four of these locations indicate a primary focus on quartz reduction, while the fifth location (T-35/2) reflects both quartz and rhyolite reduction; this latter locus also contained the Randolph PP/K. Artifacts at these locations were recovered from 0 to 90 cmbs.

Historic artifacts from 38LA666, Locus 2 include kitchen/subsistence items [whiteware (n=1); bottle glass (n=10)], architectural materials [nails (cut, n=4; wire, n=2); brick fragments (n=5); roofing shingle scraps (n=5)] and one piece of unidentifiable iron. These materials may be related to the house site recorded at 38LA666, Locus 1 west of Ernest Scott Road (Adams *et al.* (2011b) although they appear to be an earlier occupation, late 19th-early 20th century.

The prehistoric component at 38LA666, Locus 2 has been disturbed by land-clearing activities, grading activities of Mud Dauber and Ernest Scott Road, cultivation, pine silviculture, and associated soil erosion. However, prehistoric archeological deposits have been documented below the sub-plow zone and at least six locations were identified that could represent prehistoric activity areas. Given these findings, a NRHP eligibility recommendation under Criterion (d) could not be formulated for 38LA666, Locus 2. Phase II evaluation is recommended to determine if the site retains intact features, middens, subsistence remains, temporally sensitive artifacts/datable biotic materials, and/or other remains that are likely to significantly expand our knowledge on the prehistoric settlement and/or use of the study region. Future proposed work should concentrate on sub plow zone deposits with high artifact density; more specifically near high-yield shovel tests T-34/3, T-34/4, T-35/2, T-37/0, T-38/-1, and/or T- 41/-3. Limited additional shovel testing and test unit excavations are recommended in some of these areas.

The historic component at 38LA666, Locus 2 appears to be limited to the plow zone. Given the lack of depositional integrity and contextual clarity, it is unlikely that 38LA666, Locus 2 retains important information on late 19th or early 20th century settlement of the study region. The historic component at this site is recommended ineligible for the NRHP under Criterion (d) and no further work is considered necessary.

6.2.4.3 Site 38LA666, Locus 3

Site 38LA666, Locus 3 is located east of Ernest Scott Road and lies approximately 60 m south of the southern boundary of 38LA666, Locus 2; Locus 3, like Locus 2, is a multi-component site. Site 38LA666, Locus 3 is located along the edge of the same upland flat as Locus 2, east of Ernest Scott Road in Tract G (Figures 6.2b and 6.12). Site vegetation includes a pine/hardwood canopy and undergrowth of vines, grasses,

Facing North

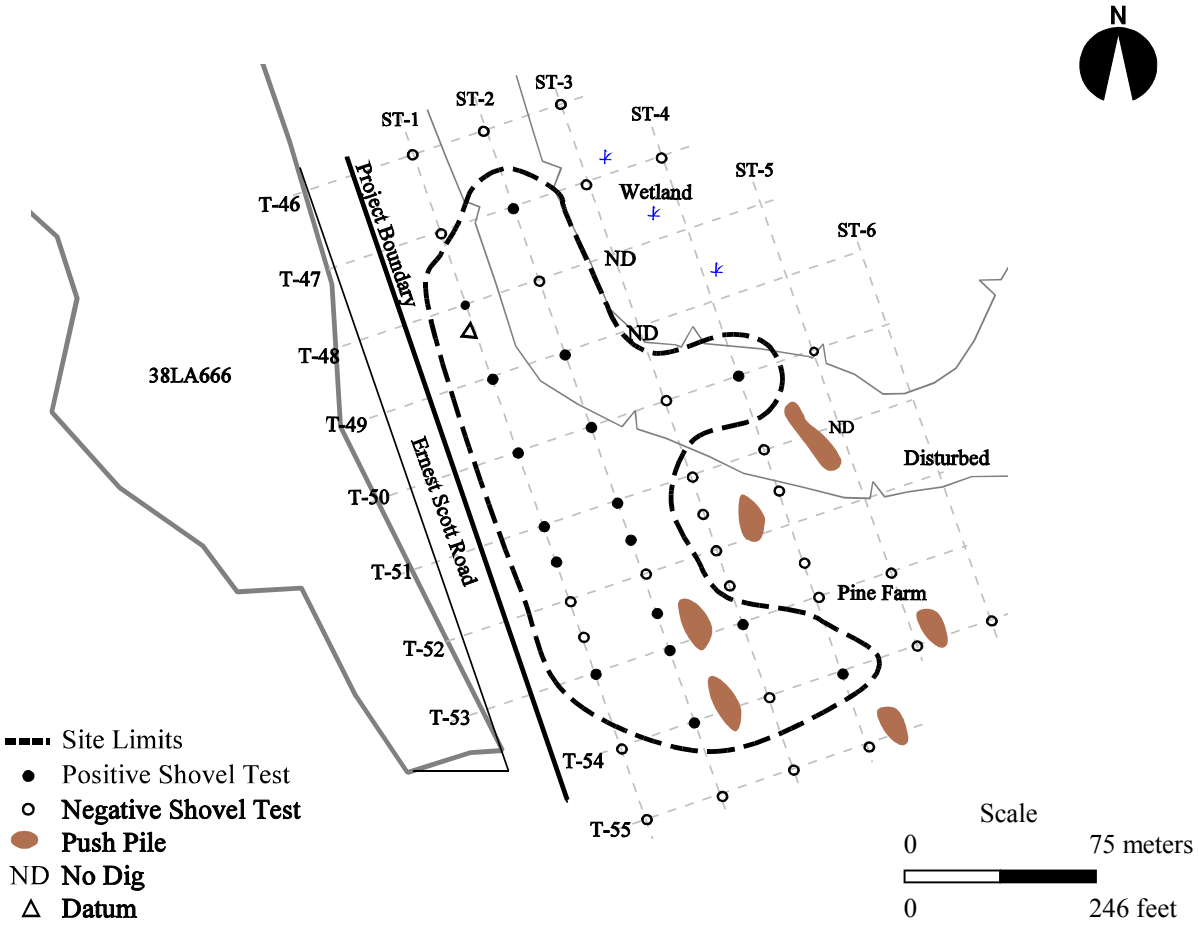


Figure 6.12 Site 38LA666, Locus 3, Photo and Sketch Map

and hardwood saplings. A dense, young pine farm with large push piles over a meter high lies along the southeastern site boundary, while a spring-fed wetland forms the site's eastern border. The site measures approximately 240 by 120 m, northwest-southeast, based on the excavation of 17 positive and 29 negative shovel tests. Surface inspection yielded no artifacts.

Both Blanton and Wagrum Sand comprise the site soil matrix. Shovel test profiles average 0 to 10 cm of grayish-brown loamy sand over light yellowish-brown sand to depths of 50 to 70 cmbs in most locations. Substrate consists of friable, strong brown sandy clay loam extending beyond 100 cmbs. In some shovel test profiles a plow zone was lacking and sub-plow zone deposits extended 40 to 60 cmbs to the substrate. Artifacts were recovered between 0 and 100 cmbs; no cultural features or distinct artifact-bearing deposits were noted during shovel testing.

Site 38LA666, Locus 3 produced 101 prehistoric and 25 historic artifacts (Table 6.7). Prehistoric lithics include both clear/milky white and opaque/white coarse-grained quartz (n=59), rhyolite (n=30),and banded rhyolite (n=12), with an assemblage consisting of debitage [thinning flakes (n=8); reduction flakes (n=15); flake fragments (n=75)], one biface fragment, one expedient scraping tool, and one formal blade tool (Figure 6.13). These materials show that lithic reduction, core/biface manufacture, light faunal processing/scraping/ cutting activities took place at 38LA666, Locus 3.

Figure 6.13 Site 38LA666, Locus 3, Selected Artifacts

High lithic artifact density (i.e., 15 or more artifacts) was noted at three shovel test locations (T-53/2, 51.5/1, and 51.5/2). Two of these locations indicate a focus on quartz and rhyolite reduction activities; shovel test T-51.5/1 also produced a rhyolite blade. At shovel test T-53/2, banded rhyolite debitage (n=12) appeared between 50 and 100 cmbs.

Historic artifacts include kitchen/subsistence items [whiteware (n=2); bottle glass (n=11)] architectural materials [unidentifiable nail fragments (n=2); machine made/unidentifiable brick fragments (n=3); mortar (n=1)], and unidentifiable iron objects (n=6). These artifacts date from the late 19th-middle 20th century. The unidentifiable iron and a contingent of the bottle glass could be road-side discard. The metal could also be machine parts associated with timber harvesting that occurred east of Ernest Scott Road. These materials could also be related to the house site recorded at 38LA666, Locus 1 west of Ernest Scott Road (Adams *et al.* 2011b).

Table 6.7 Site 38LA666, Locus 3 Artifact Inventory

Tract	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	
Transect/Shovel Test, Surface (S)	47/2	48/1	49/1	49/2	50/2	50/4	51/1	51/2	53/1	53/2	53/3	54/2	54/4	50/1	51.5/1	51.5/2	52.5/2	
Shovel Test Depth (cm)	90	60	40	70	90	90	60	50	100	100	90	60	50	80	70	60	100	
Artifact Depth (cm)	10-90	0-30	0-20	0-30	0-20	10-30	20-50	0-20	50-60	50-100	30-60	20-30	0-20	0-70	20-60	0-40	50-70	
Bag Number	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	**Total**
PREHISTORIC																		
Lithic Reduction																		
Thinning Flake, quartz								1							1			**2**
rhyolite															4			**4**
banded rhyolite										2								**2**
Reduction Flake, quartz			1										1	1		2		**5**
rhyolite			1	1			1								5			**8**
banded rhyolite										2								**2**
Flake Fragment, quartz	2	7	4	1			6	1		3		4		4	3	12	4	**51**
rhyolite		1							1						13	1		**16**
banded rhyolite										8								**8**
Core/Biface Manufacture																		
Biface Fragment, rhyolite															1			**1**
Expedient Tools																		
Flake Tool, quartz-scraping											1							**1**
Formal Tools																		
Blade, rhyolite															1			**1**
Prehistoric Total	**2**	**8**	**6**	**2**			**7**	**2**	**1**	**15**	**1**	**4**	**1**	**5**	**28**	**15**	**4**	**101**
HISTORIC																		
Kitchen/Subsistence																		
Whiteware, plain		2																**2**
Bottle Glass, clear			7															**7**
amber			1															**1**
aqua		1			1									1				**3**
Architectural/Structural																		
Nail, unidentifiable			2															**2**
Brick Fragment, machine made						1					1							**2**
unidentifiable			1									2						**1**
Mortar					1													**1**
Miscellaneous																		
Unidentifiable, iron			2											4				**6**
Historic Total		**3**	**13**		**2**	**1**					**1**			**5**				**25**
GRAND TOTAL	**2**	**11**	**19**	**2**	**2**	**1**	**7**	**2**	**1**	**15**	**2**	**4**	**1**	**10**	**28**	**15**	**4**	**126**

Site 38LA666, Locus 3 has been disturbed by land-clearing activities, cultivation, pine silviculture, and associated soil erosion. However, archeological deposits have been documented below the sub-plow zone and at least three locations were identified that could represent prehistoric activity areas. Given these findings, a NRHP eligibility recommendation under Criterion (d) could not be formulated for the prehistoric component at 38LA666, Locus 3. Phase II evaluation is recommended for this component to determine if the site retains intact features, middens, subsistence remains, temporally sensitive artifacts/datable biotic materials, and/or other remains that are likely to significantly expand knowledge on the prehistoric settlement and/or use of the study region. Future proposed work should concentrate on sub plow zone deposits with high artifact density; more specifically near high-yield shovel tests T-53/2, 51.5/1, and 51.5/2. Limited additional shovel testing and test unit excavations are recommended in some of these areas.

The historic component at 38LA666, Locus 3 is minor and generally confined to the plow zone; a portion of the historic materials may be redeposited roadside discard. Given the lack of depositional integrity and contextual clarity, it is unlikely that 38LA666, Locus 3 retains important information of late 19th or early 20th century settlement of the study region. The historic component of the site is recommended ineligible for the NRHP under Criterion (d) and no further work is warranted.

6.2.5 Site 38LA735

Site 38LA735, is a discrete, non-diagnostic, quartz lithic scatter on a west-facing side slope of a broad cleared ridge in the northwest portion of Tract D-West (Figures 6.2a and 6.14). Four additional sites and one isolated find are also situated along this landform. The landform containing Site 38LA735 appears to have been left fallow/uncultivated; the grass and briar undergrowth in the site was cut prior to the current survey. The site overlooks a wetland area approximately 60 m to the west of the site. No artifacts were observed/collected from the surface.

Site 38LA735 is confined to a single positive shovel test, T-3/14, and measures approximately 15 m in diameter based on excavation of the positive shovel test surrounded by eight negative shovel tests. Soils at this site are classified as Blanton Sand; site shovel test profiles exposed 20 cm of dark grayish-brown loamy sand plow zone over 60 cm of light yellowish-brown loamy sand. Substrate continues to at least 100 cmbs and consists of yellowish-brown sandy loam. Four pieces of opaque/white coarse-grained quartz debitage [reduction flakes (n=1); flake fragments (n=3)] were recovered from T-3/14 at 0 to 60 cmbs (Table 6.8) indicating that reduction of locally available raw materials was conducted at this site during an unknown prehistoric period. No cultural features or distinct artifact-bearing deposits were noted during shovel testing.

Table 6.8 Site 38LA735 Artifact Inventory

Tract	D	
Transect/Shovel Test, Surface	3/14	
Shovel Test Depth (cm)	80	
Artifact Depth (cm)	0-60	
Bag Number	198	**Total**
Lithic Reduction		
Reduction Flake, quartz	1	**1**
Flake Fragment, quartz	3	**3**
Total	**4**	**4**

Facing East

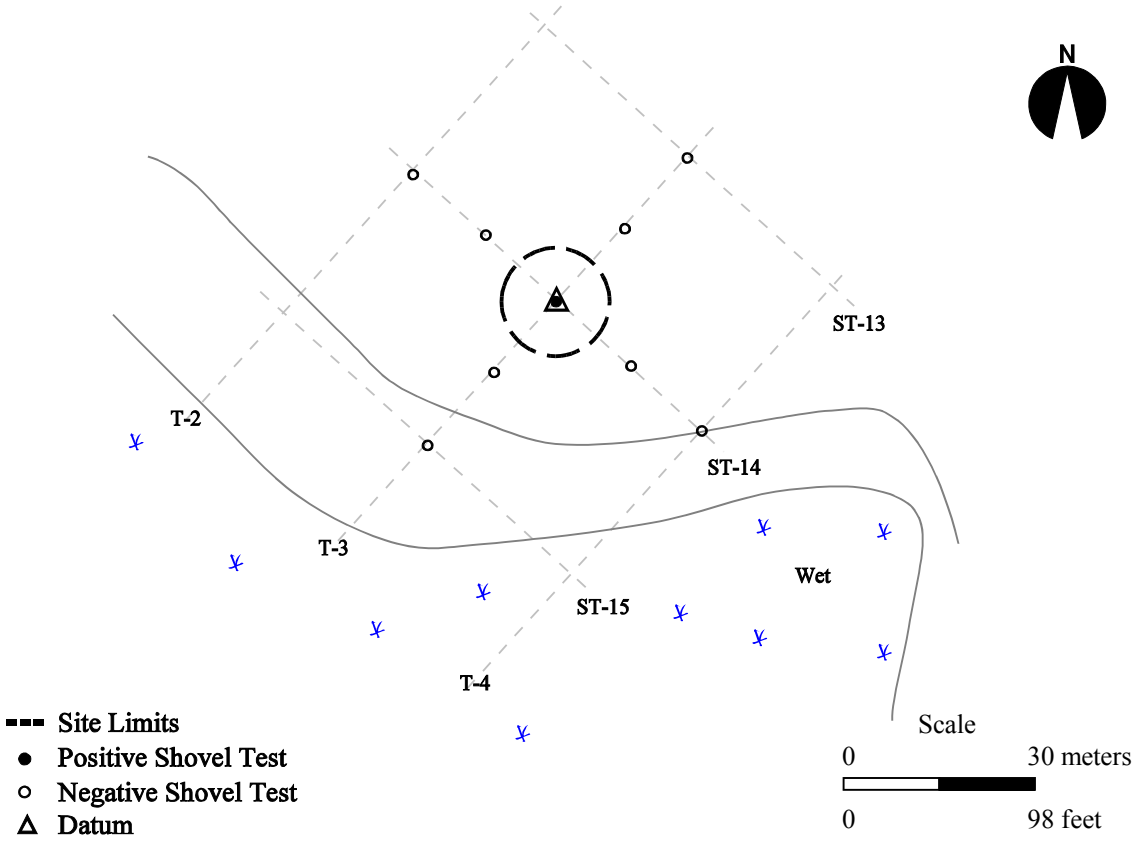


Figure 6.14 Site D-1, Photo and Sketch Map

Site 38LA735 has been disturbed by land-clearing activities, cultivation, and related soil erosion. Though archeological deposits may retain limited depositional integrity, the site is ephemeral at best. Based on low artifact density/diversity and an indeterminate cultural affiliation, the site is not likely to yield additional, significant information with further investigations. Site 38LA735 is recommended ineligible for the NRHP under Criterion (d), and no additional archaeological work is advised.

6.2.6 Site 38LA736

Site 38LA736, is a light, non-diagnostic lithic scatter located in the central portion of Tract D-West, along the crest of the broad ridge (Figures 6.2a and 6.15). A wetland, possibly spring-fed, is located approximately 75 m west of the site. Site dimensions are estimated to be 55 by 40 m, northwest-southeast, as delineated by three positive and 12 negative shovel tests. Although past agricultural activities resulted in limited surface visibility over the site area, no artifacts were observed on the surface.

Blanton Sands at 38LA736 average 20 cm of dark grayish-brown loamy sand plow zone over 50 to 60 cm of light yellowish-brown loamy sand. The substrate consists of yellowish-brown sandy loam. Three pieces of opaque/white coarse-grained quartz were recovered during the survey (Table 6.9). These items include non-diagnostic quartz flake fragments (n=2) and a quartz biface fragment. These materials were collected between 10 and 60 cmbs and indicate that lithic reduction activity occurred at the site during some unknown prehistoric period. No cultural features or distinct artifact-bearing deposits were noted during shovel testing.

Table 6.9 Site 38LA736 Artifact Inventory

Tract	D	D	D	
Transect/Shovel Test, Surface (S)	9/11	10/11	9/11.5	
Shovel Test Depth (cm)	90	80	90	
Artifact Depth (cm)	10-20	30-60	40-60	
Bag Number	201	202	213	**Total**
Lithic Reduction				
Flake Fragment, quartz	1	1		**2**
Biface fragment, quartz			1	**1**
Total	**1**	**1**	**1**	**3**

Site 38LA736 has been disturbed by land-clearing activities, extensive cultivation, and associated soil erosion. Although the site may retain limited depositional integrity and contextual clarity, the low artifact density/diversity and indeterminate cultural/temporal period suggest that the site is not likely to yield significant/meaningful archaeological information with further investigations. Site 38LA736 is considered ineligible for the NRHP under Criterion (d), and no further work is recommended.

6.2.7 Site 38LA737

Site 38LA737, is a non-diagnostic lithic scatter located on a broad ridge crest in the southwest corner of Tract D-West (Figures 6.2a and 6.16). The site is in a cut fallow field with isolated hardwoods. The closest water source is a possible spring-fed wetland located approximately 90 m west and downslope of the site. Site 39LA737 covers an irregularly shaped area measuring 80 by 45 m, northeast-southwest, based on excavation

Facing Northwest

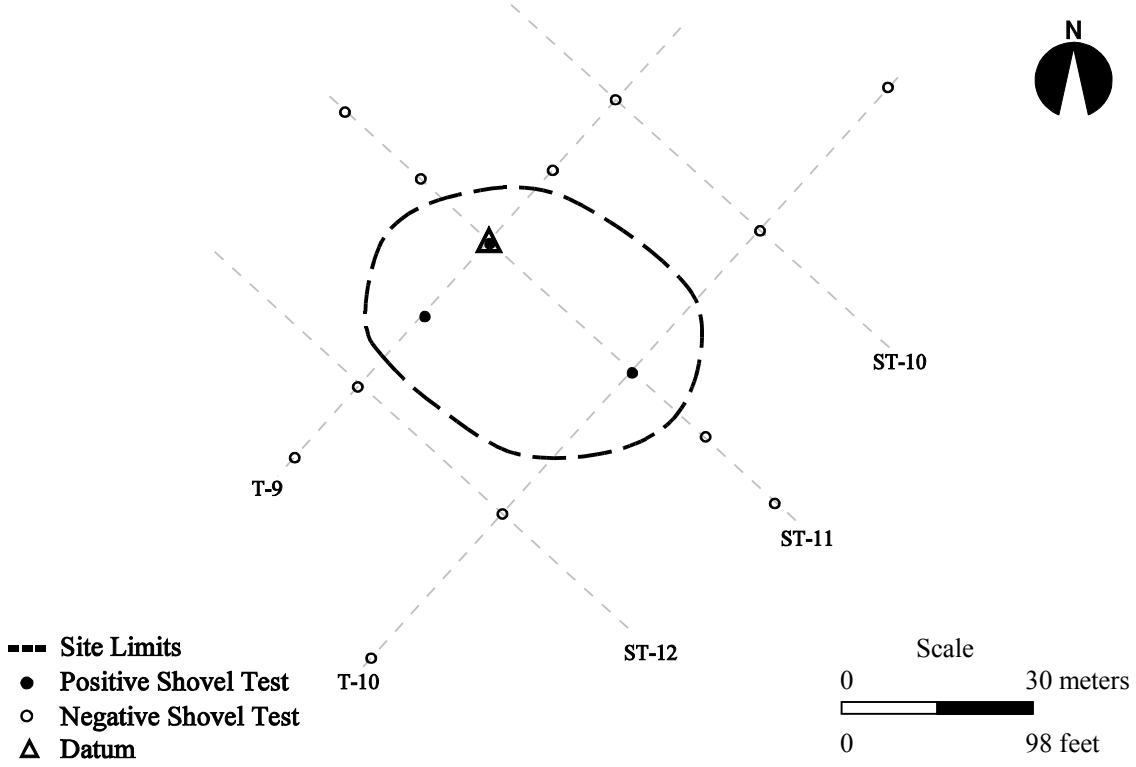


Figure 6.15 Site 38LA736, Photo and Sketch Map

Facing North

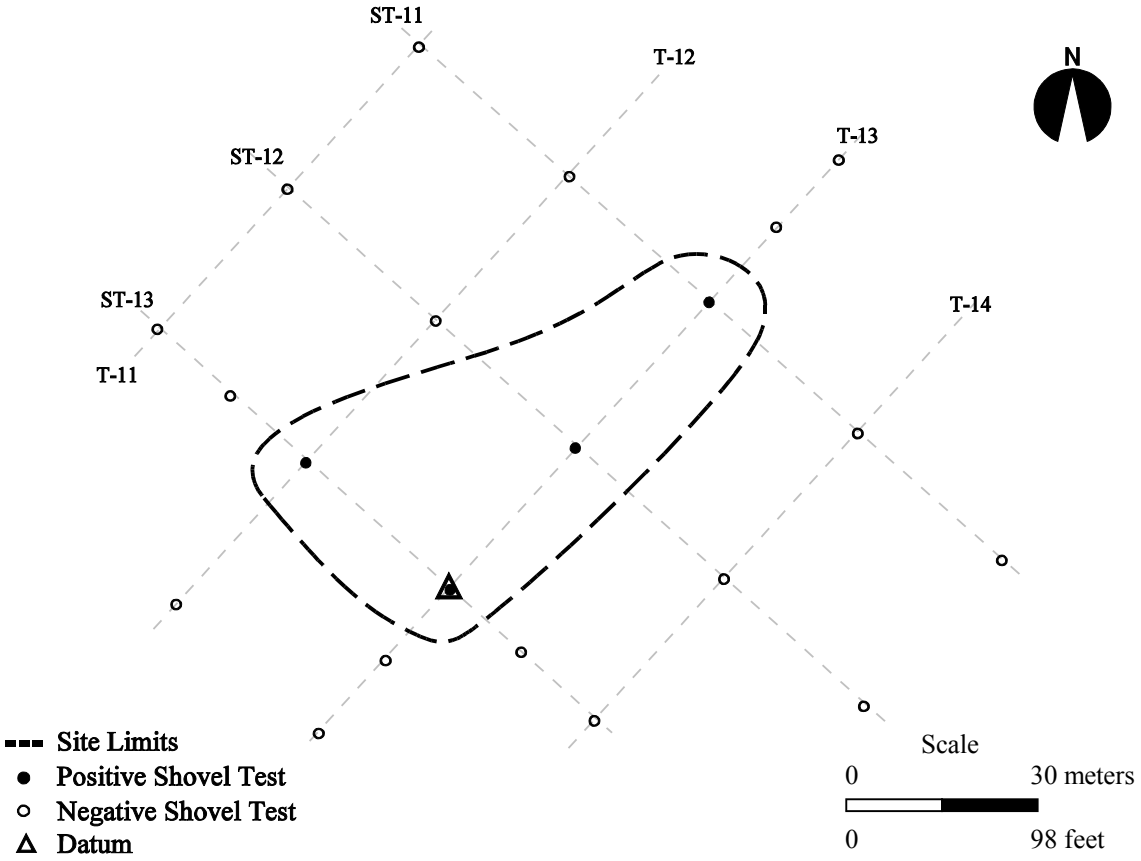


Figure 6.16 Site D-4, Photo and Sketch Map

of four positive and 17 negative shovel tests. Surface visibility was limited in the cut field and no artifacts were observed on the surface.

Shovel test profiles exhibited Blanton Sand with 10 to 30 cm of dark grayish-brown loamy sand plowzone over yellowish-brown loamy sand to 70 cmbs; below this was strong brown sandy loam with increasing clay content. Nine artifacts consisting of lithic debitage (n=8) and a metavolcanic biface fragment were recovered from the yellowish-brown loamy sands at 10 to 70 cmbs (Table 6.10). Six artifacts were recovered from shovel test T-12/13; this shovel test was excavated on a slightly elevated strip of land along the western edge of the ridge crest, just above a side slope. Raw materials including opaque/white coarse-grained quartz (n=7), rhyolite (n=1), and metavolcanic (n=1) indicate that lithic reduction activity was conducted at the site during some unknown prehistoric period. The moderate frequency of artifacts in shovel test at T-12/13 may indicate a minor quartz reduction locus. No cultural features or distinct artifact-bearing deposits were noted during shovel testing.

Table 6.10 Site 38LA737 Artifact Inventory

Tract	D	D	D	D	
Transect/Shovel Test, Surface (S)	12/13	13/11	13/12	13/13	
Shovel Test Depth (cm)	80	80	90	80	
Artifact Depth (cm)	30-60	10-20	30-70	50-60	
Bag Number	203	204	205	206	**Total**
Lithic Reduction					
Flake Fragment, quartz	6	1			**7**
rhyolite				1	**1**
Biface Fragment, metavolcanic			1		**1**
Total	**6**	**1**	**1**	**1**	**9**

Site 38LA737 has been impacted by land clearing activities, cultivation, and related erosion. Although the archeological deposits may retain limited depositional integrity and contextual clarity (i.e., one or more minor quartz reduction loci), artifact density and diversity suggests that this site is unlikely to retain the information necessary to address important research questions regarding prehistoric lifeways. On this basis, 38LA737 is recommended ineligible for the NRHP under Criterion (d), and no further archaeological work is warranted.

6.2.8 Site 38LA738

Site 38LA738 is a light, non-diagnostic quartz scatter in the southwestern portion of Tract D-West, on a broad ridge end (Figures 6.2a and 6.17). A possible spring-fed wetland is located approximately 80 m west and downslope of the site. Site dimensions are approximately 30 by 15 m, northeast-southwest, as delineated by two positive and nine negative shovel tests. Surface visibility was limited and no artifacts were observed on the surface.

Soil profiles (Blanton Sand) typically show 20 cm of dark grayish-brown loamy sand plow zone over 50 to 60 cm of light yellowish-brown loamy sand. The underlying substrate consists of brownish-yellow sandy loam. Seventeen quartz artifacts were recovered during the survey from two shovel tests, T-15/13 and T-

Facing North

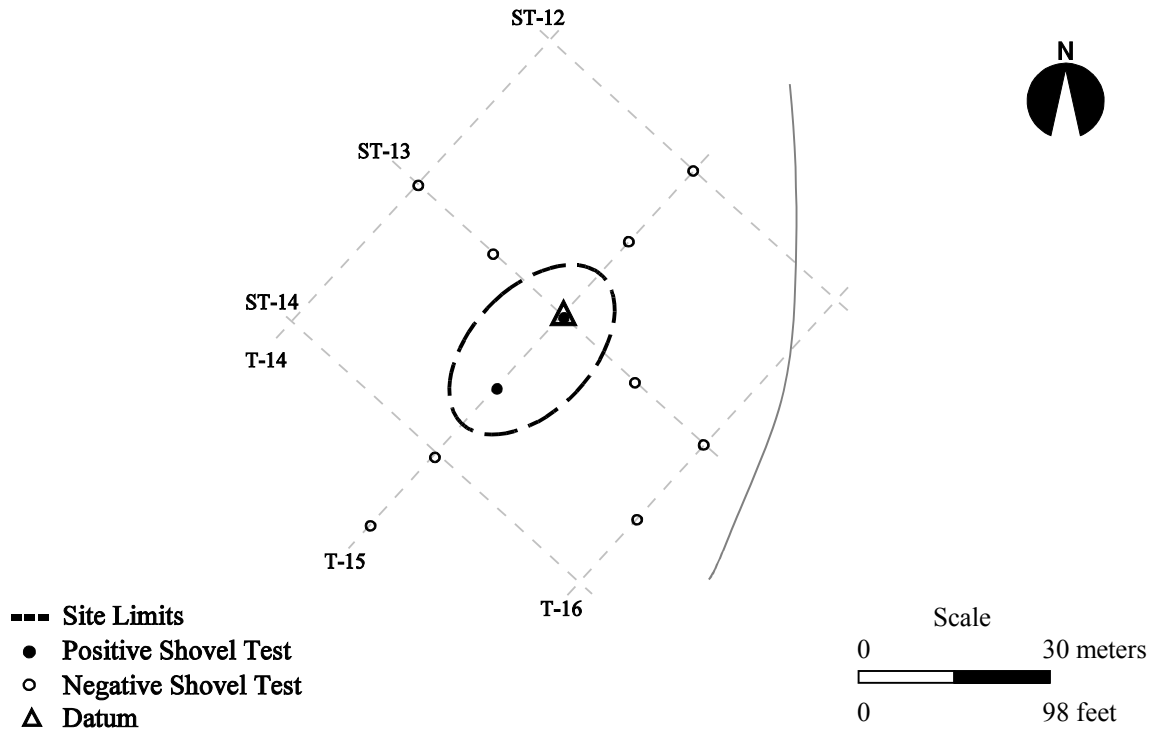


Figure 6.17 Site 38LA738, Photo and Sketch Map

15/13.5 (Table 6.11). The artifacts are of both clear/milky fine-grained and opaque/white coarse-grained quartz, and include thinning flakes (n=3), reduction flakes (n=4), and flake fragments (n=10). These materials indicate that lithic reduction activity occurred at this site during some unknown prehistoric period. The majority of the artifacts (n=14) were recovered from shovel test T-15/13 at 20 to 60 cmbs, suggesting a possible lithic reduction locus. No cultural features or distinct archeological strata were noted during shovel testing.

Table 6.11 Site 38LA738 Artifact Inventory

Tract	D	D	
Transect/Shovel Test, Surface (S)	15/13	15/13.5	
Shovel Test Depth (cm)	90	80	
Artifact Depth (cm)	20-60	30-60	
Bag Number	207	208	**Total**
Lithic Reduction			
Thinning Flake, quartz	3		**3**
Reduction Flake, quartz	4		**4**
Flake Fragment, quartz	7	3	**10**
Total	**14**	**3**	**17**

Site 38LA738 has been disturbed by land-clearing activities, cultivation, and associated soil erosion. The presence of a small quartz reduction locus indicates that this site may retain some depositional integrity and contextual clarity. However, considerable intensive archeological work has been conducted at 10 lithic sites of similar nature on Haile Gold Mine property (Cable and Price 2009, 2010; Keith *et al.* 2011; Patch *et al.* 2011). Given the small size, low artifact diversity, and modest artifact density of 38LA738 (compared to the 10 previously investigated sites), it appears unlikely 38LA738 retains archeological information that has not already been well documented during previous archeological investigations. On this basis, 38LA738 is viewed as ineligible for the NRHP under Criterion (d), and no additional archaeological investigation is advised.

6.2.9 Site 38LA739

Site 38LA739 is a non-diagnostic, quartz lithic scatter located at the gently sloping corner of a broad ridge end in the southwestern corner of Tract D-West, overlooking wetlands to the south and east of the site (Figures 6.2a and 6.18). Site dimensions are approximately 35 by 15 m, northeast-southwest, as determined by two positive and ten negative shovel tests and location of a surface find. Past agricultural activities provided limited surface visibility across the site area and one artifact, a quartz core, was collected from an exposed area adjacent to shovel test T-16/14.5.

Shovel test profiles of Blanton Sand average 20 cm of dark brown to grayish-brown loamy sand plow zone, over 50 cm of yellowish-brown loamy sand, over strong brown sandy loam with an increasing clay content. No cultural features or distinct artifact-bearing deposits were noted during shovel testing.

Opaque/white coarse-grained quartz debitage (n=4) was recovered from the shovel tests between 0 and 60 cmbs (Table 6.12); the core is made of similar material. The debitage is comprised of flake fragments (n=3) and a reduction flake (n=1). Coupled with the quartz core, these items establish that lithic reduction/ core

Facing West

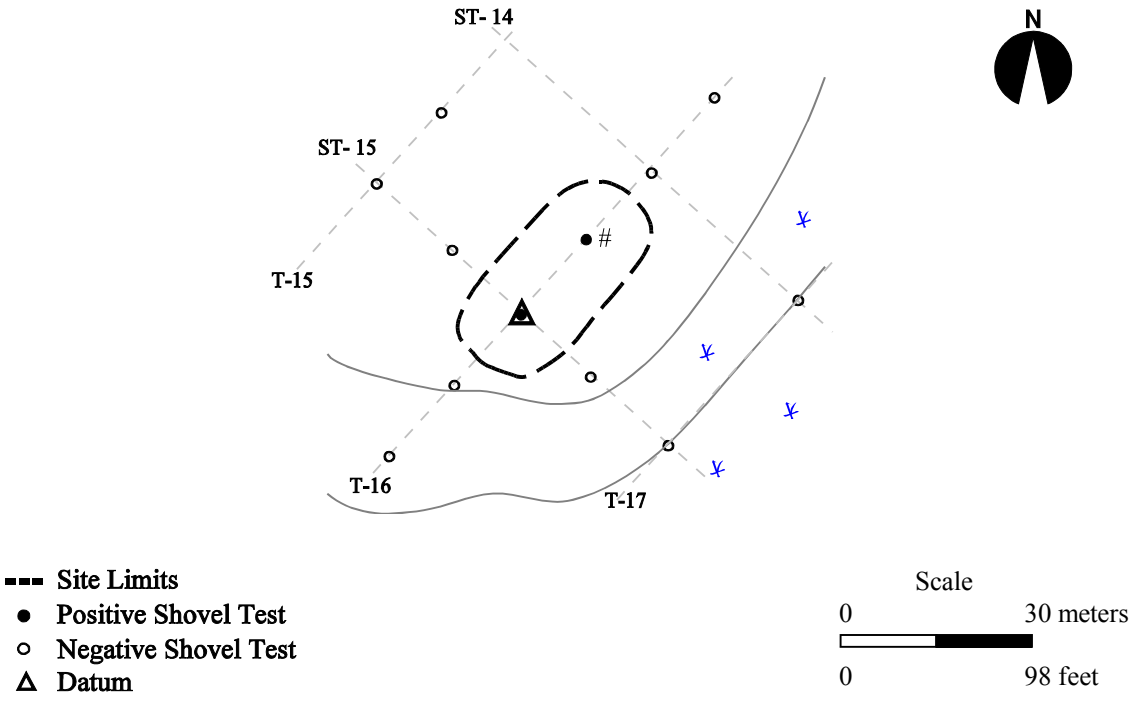


Figure 6.18 Site 38LA739, Photo and Sketch Map

manufacturing activities occurred at this site during some unknown prehistoric period.

Table 6.12 Site 38LA739 Artifact Inventory

Tract	D	D	D	
Transect/Shovel Test, Surface (S)	S	16/14.5	16/15	
Shovel Test Depth (cm)		80	80	
Artifact Depth (cm)		0-60	0-60	
Bag Number	209	209	210	**Total**
Lithic Reduction				
Reduction Flake, quartz		1		**1**
Flake Fragment, quartz		2	1	**3**
Core/Biface Manufacture				
Core, quartz	1			**1**
Total	**1**	**3**	**1**	**5**

Site 38LA739 has been disturbed by land-clearing, cultivation, and related erosion. Furthermore, the survey artifact sample is composed of non-diagnostic lithics with low artifact density/diversity. Because of this the archeological deposits lack depositional integrity and contextual clarity, and it is unlikely that this site retains important archeological information under NRHP eligibility Criterion (d). Site 38LA739 is recommended ineligible for the NRHP and no additional archeological work is warranted.

6.2.10 Site 38LA740

Site 38LA740 is a non-diagnostic, prehistoric lithic scatter located on the edge of a broad ridge along the southeastern boundary of Tract D-East. The closest natural water source is a wetland approximately 120 m to the northeast. (Figures 6.2a and 6.19). Site vegetation consists of a full pine/hardwood canopy with a moderate undergrowth of vines, grass, and pine/hardwood saplings, and the site lies adjacent to a dirt road to the south. The site covers an area measuring approximately 30 by 15 m, northeast-southwest, based on the excavation of two positive and ten negative shovel tests. As a site-specific landmark, an abandoned Chevrolet (circa 1960), sits along the northeast edge of the site. No artifacts were noted on the surface.

Site soils are classified as Blanton Sand; shovel test profiles exposed 20 cm dark grayish-brown loamy sand, over 60 cm of yellowish-brown loamy sand. Substrate consists of strong brown sandy loam. An artifact-bearing horizon was encountered in shovel tests T-2/7 and T-2/6.5 with artifacts recovered at 50 and 80 cmbs. No cultural features or distinct artifact-bearing deposits were observed during shovel testing.

The survey assemblage consists of opaque/white coarse-grained quartz (n=3) and chert (n=1) debitage [one thinning flake; one reduction flake; flake fragments (n=2)] and one rhyolite/dacite biface fragment (Table 6.13). The chert (gray to dark gray) may be similar to that recovered from nearby sites (e.g., Cable and Price 2009), or possibly a variety found in the Triassic basins of the Carolinas (Lautzenheiser *et al.* 1996; Wheeler and Textoris 1978). The

Table 6.13 Site 38LA740 Artifact Inventory

Tract	D	D	
Transect/Shovel Test, Surface (S)	2/7	2/6.5	
Shovel Test Depth (cm)	100	70	
Artifact Depth (cm)	60-80	50-60	
Bag Number	215	216	**Total**
Lithic Reduction			
Thinning Flake, chert	1		**1**
Reduction Flake, quartz		1	**1**
Flake Fragment, quartz	2		**2**
Core/Biface Manufacture			
Biface Fragment, rhyolite	1		**1**
Total	**4**	**1**	**5**

View from Transect 2/7 of Car, Facing Northeast

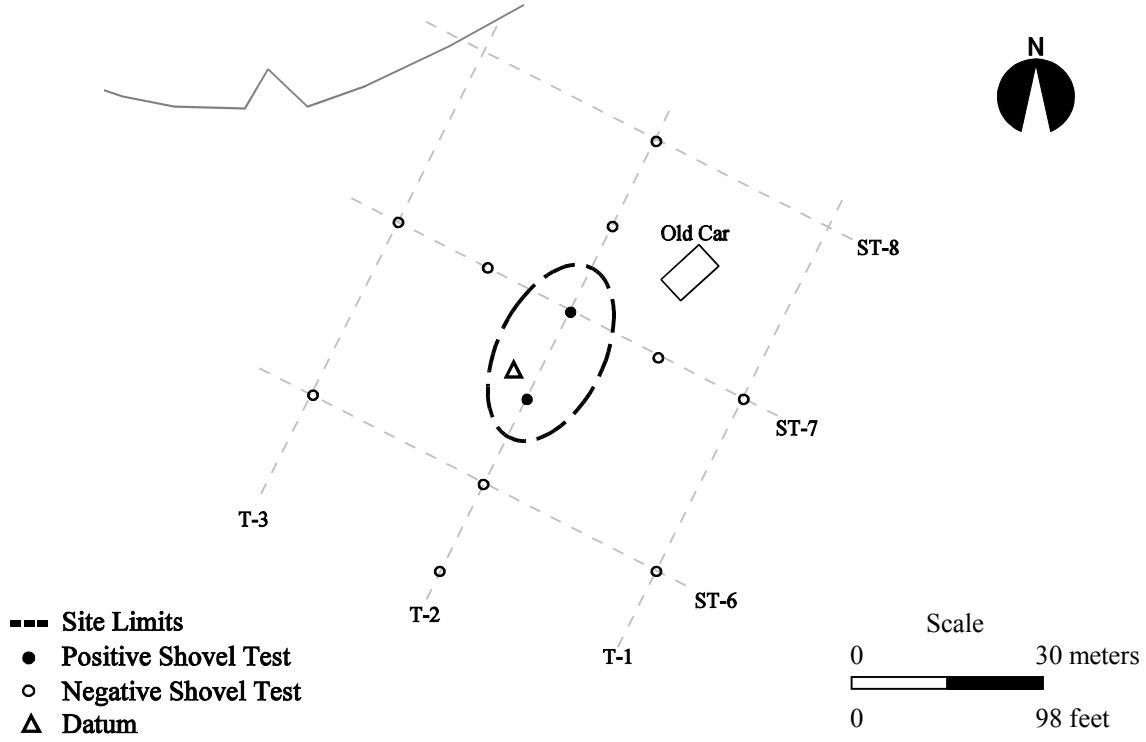


Figure 6.19 Site 38LA740, Photo and Sketch Map

thinning/reduction flakes suggest that tool refinement/repair activities took place here at some unknown point in prehistory.

The depths from which artifacts were recovered suggest that this occupation has not been significantly impacted by land clearing activities, cultivation, soil erosion, or other activities that adversely affect surficial artifact scatters. However, artifact density and diversity are low, suggesting a short-term occupation that is unlikely to retain the cultural features and/or intact/distinct deposits required to address important research concerns about prehistoric settlement and use of the study region. For these reasons, 38A740 is recommended as ineligible for the NRHP under Criterion (d). No additional archeological work is considered necessary.

6.2.11 Site 38LA741

Site 38LA741 is a light, non-diagnostic lithic scatter located in a plowed field on an upland flat in the south-central portion of Tract D-East; the field is surrounded by a pine/hardwood forest (Figures 6.2a and 6.20). Ernest Scott Road forms the southwest boundary of the site. The closest source of water is a wetland located approximately 210 m northeast of the site. Site dimensions are estimated to be 15 m in diameter, based on the excavation of one positive and six negative shovel tests. Cultivation offered exposed surfaces; non-cultural quartz float was observed, but no artifacts.

The soil at 38LA741 is classified as Blanton Sand; shovel test profiles show 25 cm of grayish-brown loamy sand plow zone resting on a yellowish-brown loamy sand to 80 cmbs. Substrate is a strong brown sandy loam. Four opaque/white coarse-grained quartz flake fragments were recovered from shovel test T-7/4 at a depth of 50 to 60 cmbs (Table 6.14), indicating that lithic reduction activity was conducted here temporarily at some unknown point during prehistory. No cultural features or distinct artifact-bearing deposits were noted during shovel testing.

Table 6.14 Site 38LA741 Artifact Inventory

Tract	**D**	
Transect/Shovel Test, Surface (S)	7/4	
Shovel Test Depth (cm)	100	
Artifact Depth (cm)	50-60	
Bag Number	220	**Total**
Lithic Reduction		
Flake Fragment, quartz	4	**4**
Total	**4**	**4**

While the archeological deposits at 38LA741 do not appear to have been significantly disturbed by land-clearing activities, cultivation, or related erosion, the deposits exhibit low artifact density and diversity, and appear to be limited to a very small area, suggesting a transient nature. For these reasons, it is improbable that the archeological deposits retain important information on prehistoric lifeways in the study region. Site 38LA741 is recommended ineligible for the NRHP under Criterion (d) and no additional archeological work is warranted.

Facing South

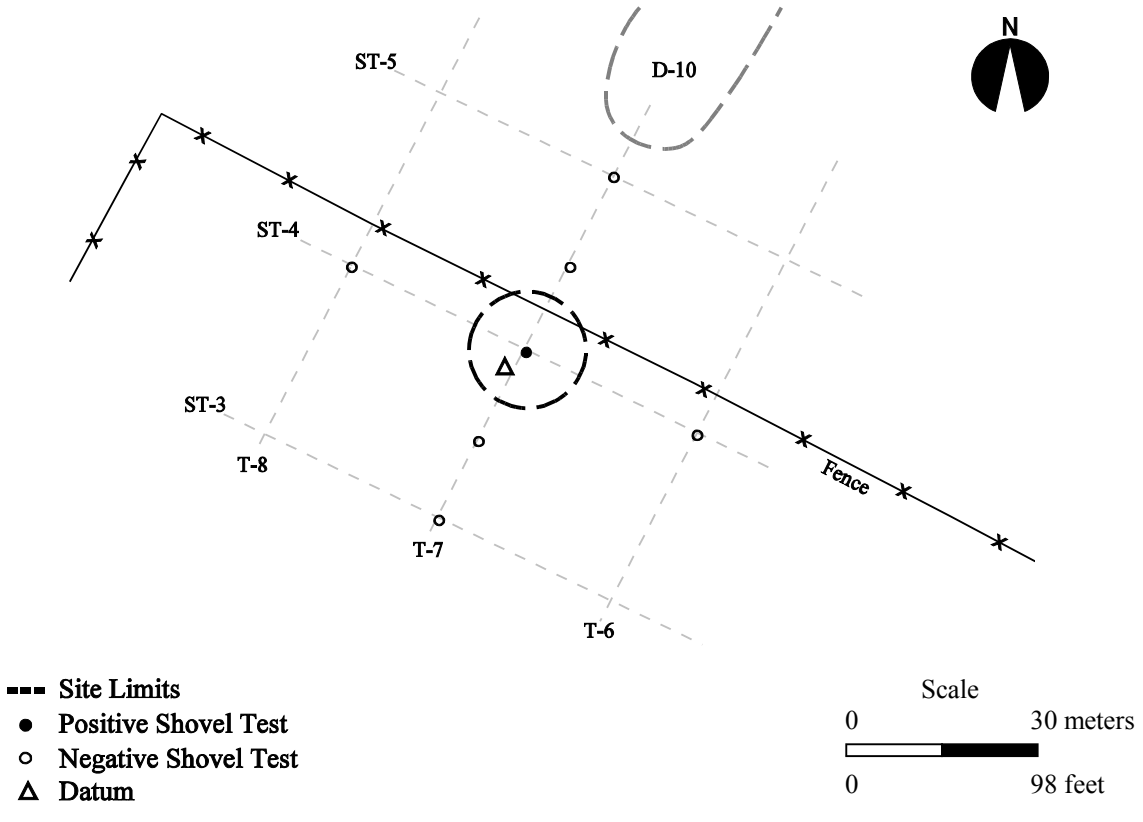


Figure 6.20 Site 38LA741, Photo and Sketch Map

6.2.12 Site 38LA742

Site 38LA742 is a discrete lithic and ceramic scatter along the edge of a broad ridge overlooking the head of a ravine/wetland in the southern portion of Tract D-East (Figures 6.2a and 6.21). The site is in a full canopy pine/hardwood forest with a moderate undergrowth of vines, shrubs, and dominant-species saplings. The closest natural source of water is a spring-fed wetland approximately 180 m east-northeast of the site. Site dimensions are estimated at 60 by 15 m, southwest-northeast, as determined by three positive and 11 negative shovel tests. No archeological materials were observed on the surface.

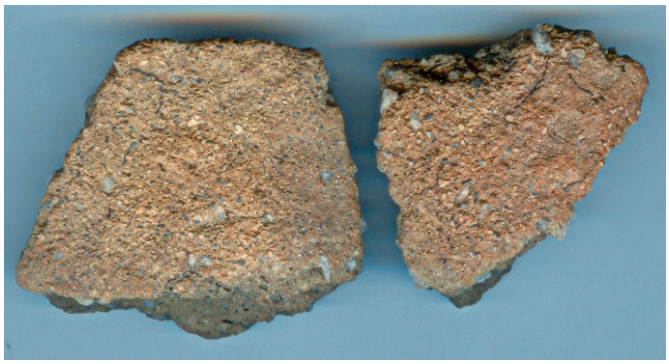
Soil profiles at 38LA742 (Wagrum Sand) typically display 20 cm of light olive-brown sand plow zone over 40 to 60 cm of light yellowish-brown sand. The substrate consists of a friable light olive-brown sandy loam extending beyond 80 cmbs. Eighteen artifacts were recovered during the survey between 20 and 60 cmbs. No distinct cultural features or obvious artifact-bearing strata were noted during shovel testing.

Both lithics (n=14) and ceramics (n=4) were recovered during shovel testing at 38LA742 (Table 6.15). Lithics consist of opaque/ white coarse-grained quartz thinning flakes (n=2), one reduction flake, and flake fragments (n=11). Twelve of the 14 pieces of debitage were recovered from shovel test T-7/5.5. Four ceramic sherds [unknown eroded decorated (n=2); eroded (n=2)] were taken from shovel test T-7/7 at 20 to 50 cmbs. The sherds are tempered with crushed quartz and are 3 to 5 cm in diameter (Figure 6.22). The survey assemblage suggests the presence of a lithic reduction locus and possibly a cooking/containment-related ceramic locus, or perhaps an isolated broken vessel.

Table 6.15 Site 38LA742 Artifact Inventory

Tract	D	D	D	
Transect/Shovel Test, Surface (S)	7/5.5	7/6.5	7/7	
Shovel Test Depth (cm)	80	60	80	
Artifact Depth (cm)	20-60	20-40	20-50	
Bag Number	217	218	219	**Total**
Lithic Reduction				
Thinning Flake, quartz	2			**2**
Reduction Flake, quartz	1			**1**
Flake Fragment, quartz	9	2		**11**
Cooking/Containment				
Unknown eroded/decorated			2	**2**
eroded			2	**2**
Total	**12**	**2**	**4**	**18**

Eroded Sherds, T-7/7



Unknown/Eroded Decorated Sherds, T-7/7

(Actual Size)

Figure 6.22 Site 38LA742, Selected Artifacts

Facing East

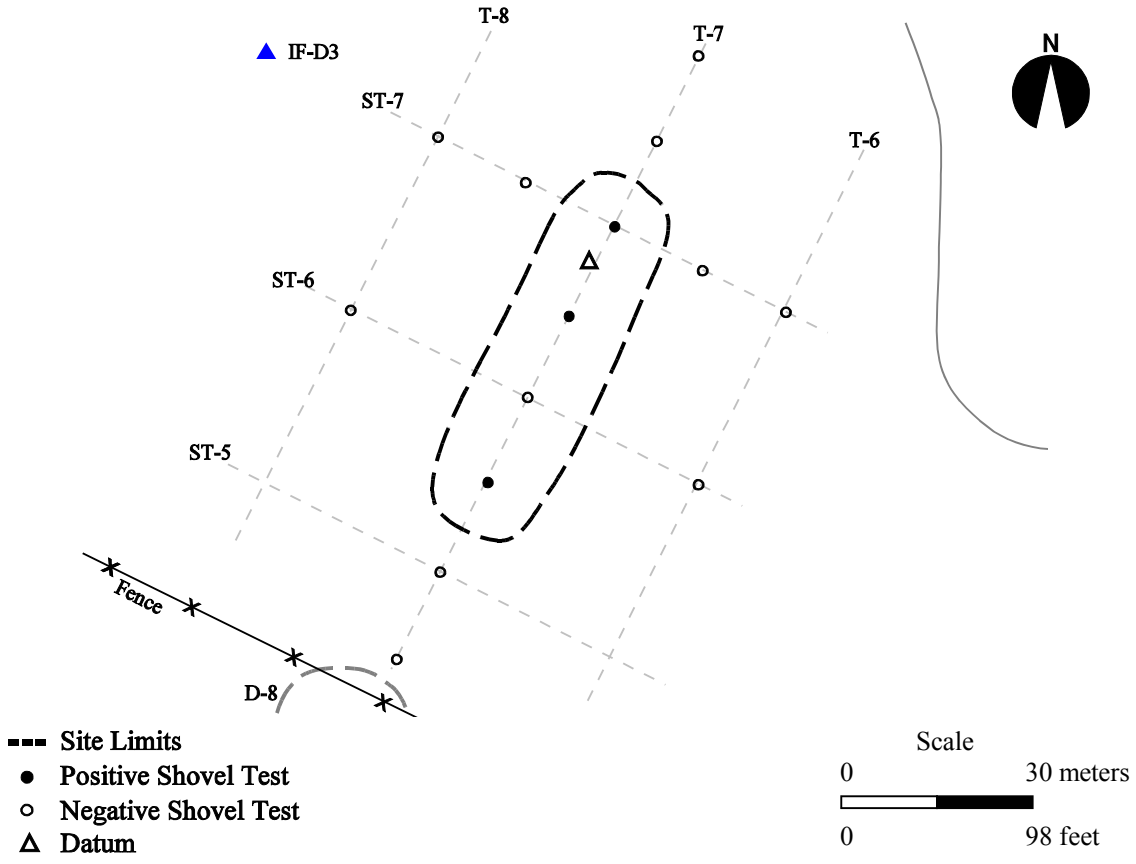


Figure 6.21 Site 38LA742, Photo and Sketch Map

Temporally, the site was at occupied during at least the Early to Middle Woodland period based on the crushed quartz tempering of the ceramics.

Site 38LA742 has been disturbed by land-clearing, agriculture, cultivation, pine silviculture, and associated erosion. However, the site contains at least two horizontally discrete artifact clusters, though the ceramic cluster is limited to four artifacts. The sampling of clustered lithic artifacts at a slightly lower depth than the ceramics may be an indication of basic vertical separation of these two activity areas/occupations. On this basis, NRHP eligibility recommendation under Criterion (d) could not be made for 38LA742. Phase II archeological evaluation is recommended to establish if the site retains intact features, middens, subsistence remains, temporally sensitive artifacts/datable biotic materials, and/or other remains that are likely to significantly expand knowledge on the prehistoric settlement and/or use of the study region. It is advised that Phase II evaluation include limited additional shovel testing in the vicinity of shovel tests T-7/5.5 and T-7/7 to further define activities at these locations, followed by limited structured test unit excavations.

6.2.13 Site 38LA743

Site 38LA743 is a very discrete, non-diagnostic lithic scatter located on a broad ridge in the southwestern part of Tract D-East (Figures 6.2a and 6.23). Site vegetation consists of a broken canopy of regenerative loblolly pines and hardwoods with a moderate undergrowth of vines, grass, weedy shrubs, and saplings. The closest source of water is a spring-fed wetland located approximately 150 m east of the site. The site covers an area approximately 15 m in diameter, based a single positive shovel test, T-11/8, surrounded by eight negative shovel tests. During the survey, no exposed surfaces were available for inspection.

Wagrum Sand at the site averaged 20 cm of light olive-brown sand plow zone overlain with 50 cm of light yellowish-brown sand. Substrate consists of a friable light olive-brown sandy loam extending beyond 90 cmbs. All artifacts were recovered between 20 and 70 cmbs. No cultural features or well defined artifact-bearing strata were noted during shovel testing.

Table 6.16 Site 38LA743 Artifact Inventory

Tract	D	
Transect/Shovel Test, Surface (S)	11/8	
Shovel Test Depth (cm)	90	
Artifact Depth (cm)	20-70	
Bag Number	233	**Total**
Lithic Reduction		
Thinning Flake, rhyolite	14	**14**
Reduction Flake, rhyolite	8	**8**
banded rhyolite	1	**1**
Flake Fragment, quartz	2	**2**
rhyolite	16	**16**
Total	**41**	**41**

Forty-one pieces of debitage were recovered from shovel test 11/8, including thinning flakes (n=14), reduction flakes (n=9), and flake fragments (n=18) (Table 6.16). Most of the debitage is rhyolite (n=38), followed by opaque/white coarse-grained quartz (n=2) and banded rhyolite (n=1). Most of the rhyolite material was noted at 20 to 50 cmbs, while the banded rhyolite and quartz debitage were observed at the bottom of the artifact-bearing deposit, approximately 50 to 70 cmbs. Collectively, these artifacts indicate a fairly well-defined lithic reduction locus, active during one or more unknown prehistoric periods.

Facing South

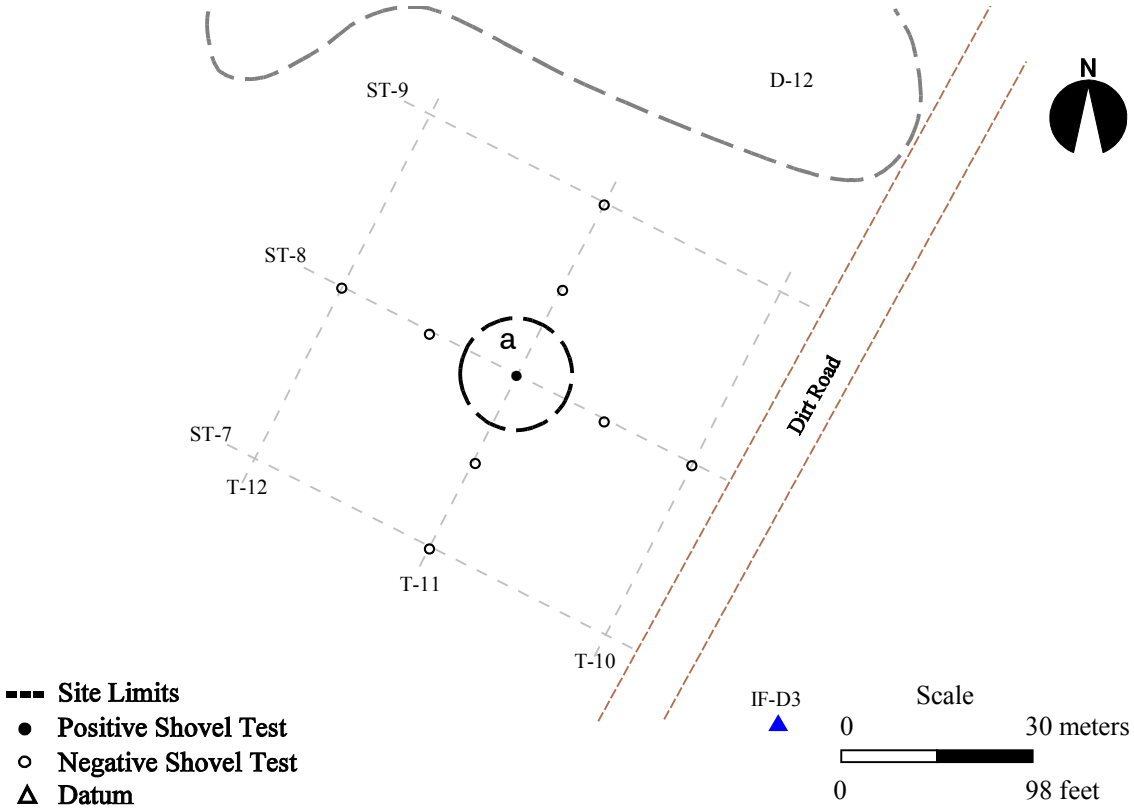


Figure 6.23 Site 38LA743, Photo and Sketch Map

Site 38LA743 has been disturbed to some extent by land-clearing activities, cultivation, pine silviculture, and related soil erosion. While the site has an indeterminate cultural affiliation, shovel testing detected one location with a high density of rhyolite debitage superior to a small quantity of quartz and banded rhyolite material. This finding could point to an initial episode of quartz/banded rhyolite reduction followed by an intense episode of rhyolite reduction. For this reason, a NRHP eligibility recommendation under Criterion (d) could not be made for 38LA743. Phase II archeological evaluation is recommended to establish if this site retains intact features, middens, subsistence remains, temporally sensitive artifacts/datable biotic materials, and/or other remains that are likely to significantly expand knowledge on the prehistoric settlement and/or use of the study region. It is advised that Phase II evaluation include limited additional shovel testing in the vicinity of shovel test T-11/8 to further define activities at this location, followed by limited structured test unit excavations.

6.2.14 Site 38LA744

Site 38LA744 is a diffuse, non-diagnostic lithic scatter located on a broad ridge in the central portion of Tract D-East (Figures 6.2a and 6.24). The site is in regenerative growth pines/hardwoods, vines, grass, and weedy shrubs. The closest source of water is a wetland located approximately 100 m east of the site. The site dimensions are approximately 125 by 115 m, southwest-northeast, as delineated by 10 positive and 31 negative shovel tests. No artifacts were observed/collected from the surface.

Shovel test profiles exhibit Wagrum Sand with an average of 15 to 20 cm of grayish-brown loamy sand plow zone, over light yellowish-brown sand ending at 60 to 80 cmbs, over a friable light olive-brown sandy loam extending beyond 100 cmbs. Artifacts were recovered at depths of 20 to 70 cmbs. No artifacts were recovered from site surfaces. A rock cluster feature may have been sampled in shovel test T-10/12.

Forty-two lithic artifacts were recovered during shovel testing, 26 of which were taken from 40 to 70 cmbs (Table 6.17). The survey sample is comprised of 35 pieces of debitage [thinning flakes (n=4); one reduction flake; flake fragments (n=29); shatter (n=1)] manufactured from opaque/white coarse-grained quartz (n=30) or rhyolite (n=5). Quartz cobbles (n=7) were taken from shovel tests T-10/12 and T-11/12 between 50 and 70 cmbs, with the heaviest concentration at T-10/12 (n=6). One cobble from each of these shovel tests appeared to be heat-treated (FCR). Shovel test T-10/12 also contained a relatively high frequency of flake fragments (n=9). Site activities included the reduction of locally available raw material. The clustering of the quartz cobbles may point to hot-rock cooking activities, or the caching of such rocks for hot-rock cooking or possibly even lithic reduction. When these activities occurred is unknown.

Site 38LA744 has been disturbed to some extent by land-clearing activities, cultivation, pine silviculture, and related erosion. However, sub-plow zone artifact-bearing deposits were identified at 10 shovel test locations, six of which contained artifacts exclusively at depths of 40 to 70 cmbs. In addition, shovel test T-10/12

Facing South

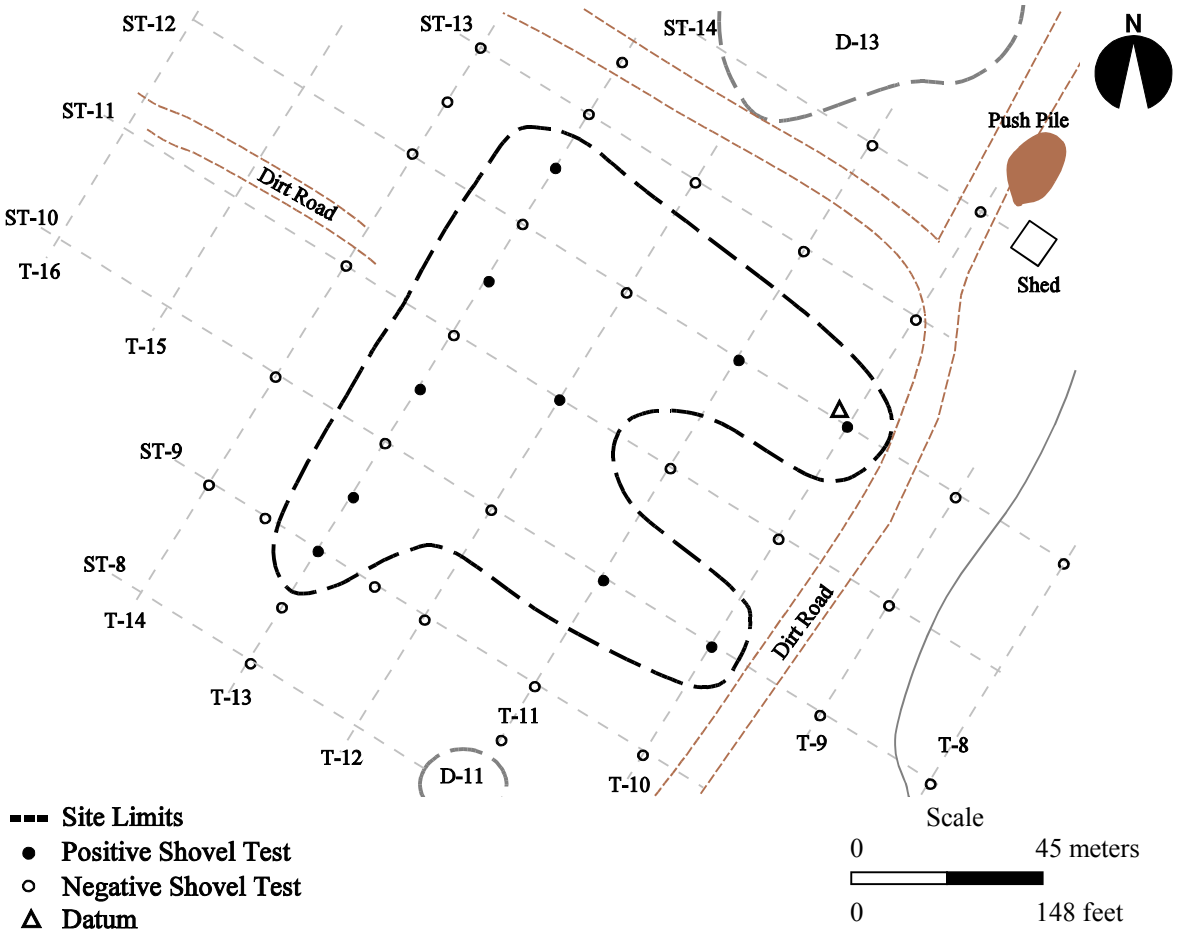


Figure 6.24 Site 38LA744, Photo and Sketch Map

Table 6.17 Site 38LA744 Artifact Inventory

Tract	D	D	D	D	D	D	D	D	D	D	
Transect/Shovel Test	10/10	10/12	11/10	11/12	12/11	13/9	13/9.5	13/10.5	13/11.5	13/12.5	
Shovel Test Depth (cm)	100	100	70	70	80	90	70	70	80	70	
Artifact Depth (cm)	50-70	50-70	20-60	40-60	40-60	40-60	20-40	20-50	50-60	30-40	
Bag Number	226	227	228	235	241	245	250	251	252	253	**Total**
Lithic Reduction											
Thinning Flake, quartz			1								**1**
rhyolite			1				2				**3**
Reduction Flake, rhyolite								1			**1**
Flake Fragment, quartz	1	9	7	4		1		2	1	3	**28**
rhyolite	1										**1**
Shatter, quartz					1						**1**
Cooking/Containment											
FCR, quartz cobble		1		1							**2**
Quartz cobble		5									**5**
Total	**2**	**15**	**9**	**5**	**1**	**1**	**2**	**3**	**1**	**3**	**42**

exhibited a relatively high frequency of debitage and quartz cobbles, suggesting a possible feature or activity area. Because of these findings and other survey data, a NRHP eligibility recommendation for 38LA744 under Criterion (d) could not be formulated. Therefore, Phase II archeological evaluation is recommended to establish if the site retains intact features, middens, subsistence remains, temporally sensitive artifacts/ datable biotic materials, and/or other remains that are likely to significantly expand knowledge on the prehistoric settlement and/or use of the study region. It is advised that Phase II evaluation include limited additional shovel testing in the vicinity of shovel test T-10/12 to further define a possible activity area at this location, followed by limited structured test unit excavations.

6.2.15 Site 38LA745

Site 38LA745 is an extensive, non-diagnostic lithic scatter along the edge of a broad ridge and spur overlooking streams/wetlands about 80 m to the east and north. The site is located in the central portion of Tract D-East (Figures 6.2a and 6.25). Site vegetation consists of a full pine/hardwood canopy except for a clearing near the center of the site, which was cleared/graded and cultivated but now supports isolated hardwoods, grass, and briars. The site covers an approximate 300 by 85 m area, east-west, as determined by the excavation of 20 positive and 31 negative shovel tests. Two road traces cross the site's southern and western boundaries. In addition to the above impacts, recent disturbances include grading/push piling along the southern, northern, and western boundaries of the site. Past agricultural activities provided surface visibility, particularly in the clearing, where quartz debitage and shatter were noted but not collected.

Wagrum series sand was exposed during shovel testing, averaging 20 cm of light olive-brown sand plow zone over approximately 60 cm of light yellowish-brown sand. Substrate consists of a friable light olive-brown sandy loam extending beyond 100 cmbs. Artifacts were noted at depths of 10 to 70 cmbs. Artifacts were not collected from the clearing because of the high artifact density, non-diagnostic nature of the debitage,

Facing West

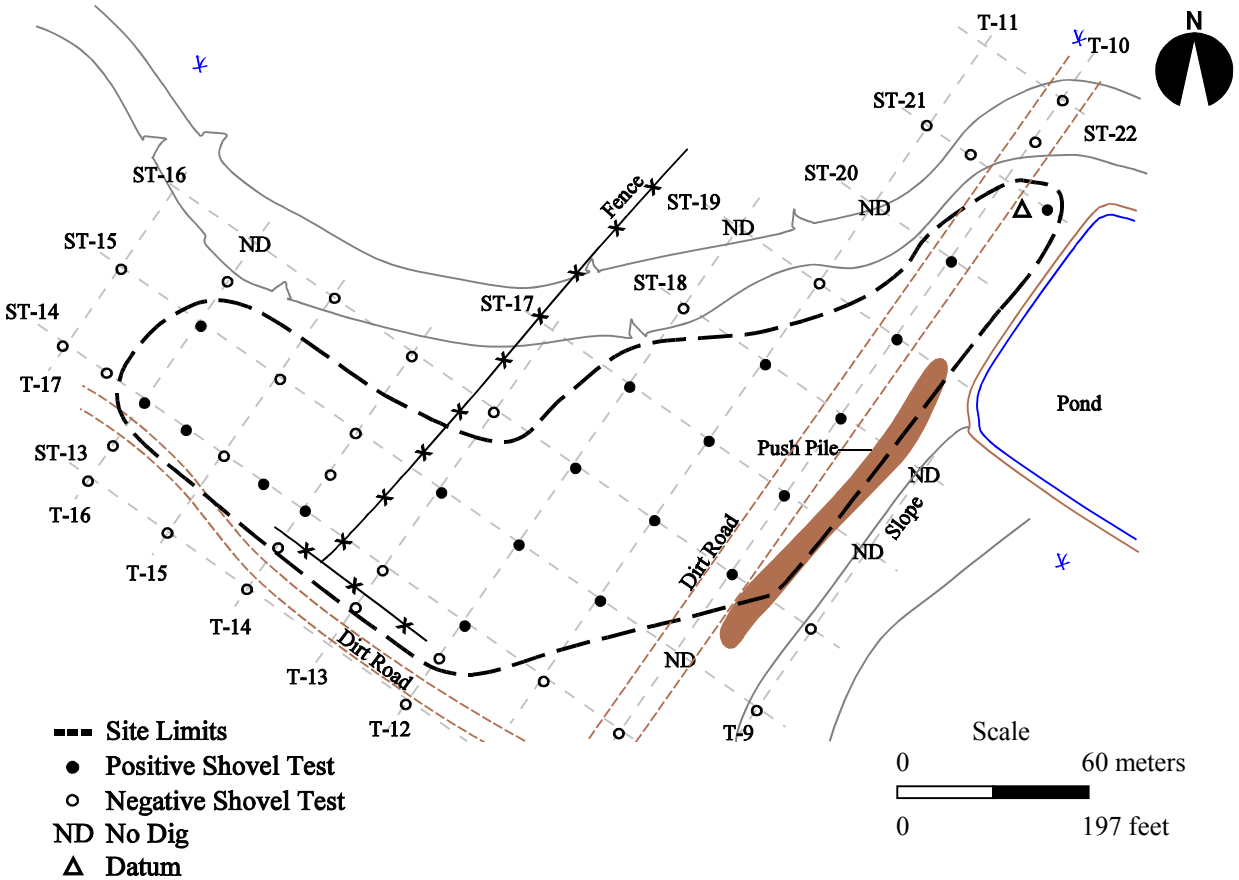


Figure 6.25 Site 38LA745, Photo and Sketch Map

relatively recent nature of the clearing/grading/cultivation activities, and because collections from the interior of the site would not affect the overall site boundaries. No cultural features or distinct artifact-bearing deposits were noted during shovel testing.

One-hundred and seventy-one pieces of debitage and one piece of FCR were recovered during site shovel testing (Table 6.18). The debitage includes both clear/milky white and opaque/white coarse-grained quartz (n=127), rhyolite (n=40), banded rhyolite (n=1), and diabase (n=3). The debitage is composed of thinning flakes (n= 10), reduction flakes (n=18), flake fragments (n=142) and shatter (n=1). No bifaces/biface fragments were observed in the surface scatter or recovered during shovel testing. Coupled with the dense

Table 6.18 Site 38LA745 Artifact Inventory

Tract	D	D	D	D	D	D	D	D	D	D	D
Transect/Shovel Test, Surface (S)	10/16	10/17	10/18	10/20	11/15	11/16	11/17	11/18	12/14	12/15	12/16
Shovel Test Depth (cm)	90	100	110	90	80	80	60	60	70	60	70
Artifact Depth (cm)	40-60	40-60	10-70	20-30	0-60	20-60	0-40	0-40	20-50	0-40	0-50
Bag Number	228	229	230	231	236	237	238	239	242	243	244
Lithic Reduction											
Thinning Flake, quartz		1									1
rhyolite					1						1
banded rhyolite											1
Reduction Flake, quartz							2				1
rhyolite			3		1				1		
Flake Fragment, quartz	4	12	9	1	10	8	17	17	1	3	12
rhyolite		1	3			1					3
diabase						3					
Shatter, quartz											
quartz cobble		1									
Total	**4**	**15**	**15**	**1**	**12**	**12**	**19**	**17**	**2**	**3**	**19**

Tract	D	D	D	D	D	D	D	D	D	
Transect/Shovel Test, Surface (S)	13/15	12/17	10/19	9.5/21	14/14	16/14	16/15	15.5/14	14.5/14	
Shovel Test Depth (cm)	80	60	80	90	100	90	90	80	90	
Artifact Depth (cm)	20-50	20-40	20-65	40-60	50-70	30-60	40-60	30-50	30-60	
Bag Number	246	247	248	249	256	258	259	263	264	**Total**
Lithic Reduction										
Thinning Flake, quartz										**2**
rhyolite					1				4	**7**
banded rhyolite										**1**
Reduction Flake, quartz							1			**4**
rhyolite		1						2	6	**14**
Flake Fragment, quartz	4	3	8	3	2	3	3			**120**
rhyolite	1				6				4	**19**
diabase										**3**
Shatter, quartz		1								**1**
Cooking/Containment										
FCR, quartz cobble										**1**
Total	**5**	**5**	**8**	**3**	**9**	**3**	**4**	**2**	**14**	**172**

quartz debitage/shatter observed in the cleared area, these items are indicative of lithic extraction, early stage reduction/processing, and biface thinning activities during an undetermined prehistoric period. If not created by some natural means leading to misclassification, the isolated piece of FCR could be an indication of limited hot-rock cooking activity.

Of the 20 positive shovel tests excavated, 14 revealed potential sub-plow zone deposits with artifacts being extracted at 20 to 70 cmbs. In addition, clusters of rhyolite and quartz were identified. A rhyolite cluster was noted between shovel tests T-14/14 (n=7) and T-14.5/14 (n=14) at depths of 30 to 70 cmbs. A cluster of quartz debitage is present in the central southern part of the site between shovel tests T-11/16 (n=8) and T-10/17 (n=12) at depths of 20 to 60 cmbs.

Site 38LA745 has been disturbed from land-clearing/grading activities, installation of roads, cultivation, and associated erosion. However, sub-plow zone cultural deposits are evident in a number of locations and at least two lithic reduction activity areas are known to be present. Given these survey findings, a NRHP eligibility recommendation under Criterion (d) could not be formulated for 38LA745. Phase II evaluation is recommended to determine if the site retains intact features, middens, subsistence remains, temporally sensitive artifacts/datable biotic materials, and/or other remains that are likely to significantly expand our knowledge on the prehistoric settlement and/or use of the study region. Future proposed work should concentrate on sub plow zone deposits with high artifact density; specifically between shovel tests T-14/14 and T-14.5/14 as well as between shovel tests T-11/16 and T-10/17. Limited additional shovel testing and test unit excavations are recommended.

6.2.16 Site 38LA746

Site 38LA746 is a small and discrete, non-diagnostic lithic scatter located on a broad ridge in the southwest central portion of Tract D-East (Figures 6.2a and 6.26). Site vegetation consists of a broken canopy of loblolly pines and hardwoods with a moderate undergrowth of vines, grass, weedy shrubs, and saplings. The closest source of water is a spring-fed wetland/drainage located approximately 270 m north of the site. The site covers an area approximately 15 m in diameter based on a single positive shovel test, T-17/14, surrounded by eight negative shovel tests. No artifacts were observed or collected from the surface.

Shovel testing exposed Wagrum Sand with an average of 20 cm of light olive-brown sand plow zone over with 60 cm of light yellowish-brown sand. The substrate consists of a friable light olive-brown sandy loam extending beyond 100 cmbs. Artifacts were collected from 60 and 70 cmbs. No cultural features or distinct artifact-bearing deposits were noted during shovel testing.

Three clear/milky white quartz flake fragments were recovered during the survey (Table 6.19). These materials indicate only that lithic reduction activities occurred at this site during some unknown prehistoric period.

Facing North

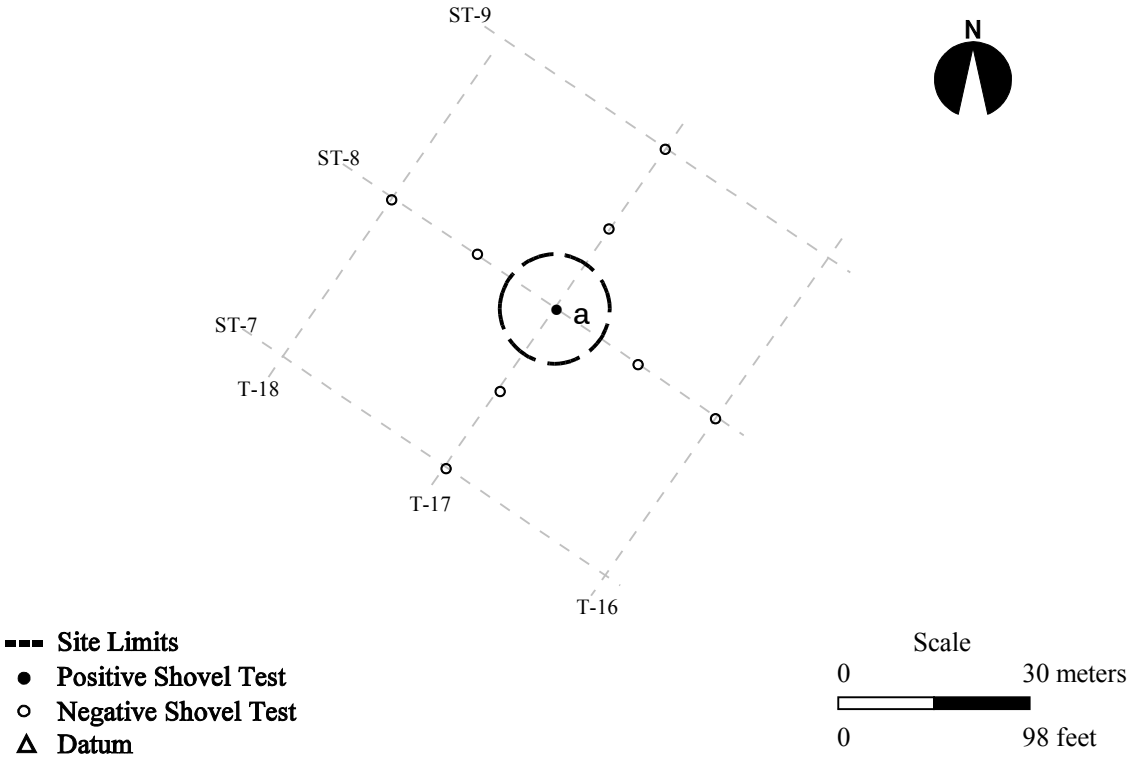


Figure 6.26 Site 38LA746, Photo and Sketch Map

Site 38LA746 has been disturbed by land-clearing activities, cultivation, pine silviculture, and related soil erosion. Furthermore, the archeological deposits exhibit low artifact density and diversity and no evidence of depositional integrity or contextual clarity. For these reasons, the site is not likely to yield additional, significant archeological information with further investigations. Site 38LA746 is considered ineligible for the NRHP under Criterion (d) and no additional archeological work is recommended.

Table 6.19 Site 38LA746 Artifact Inventory

Tract	D	
Transect/Shovel Test, Surface (S)	17/14	
Shovel Test Depth (cm)	100	
Artifact Depth (cm)	60-70	
Bag Number	260	**Total**
Lithic Reduction		
Flake Fragment, quartz	3	**3**
Total	**3**	**3**

6.2.17 Site 38LA747

Site 38LA747 is a diffuse, non-diagnostic lithic scatter located on a broad northeast-facing ridge spur in the north central portion of Tract D-East (Figures 6.2a and 6.27). The site is in a regenerative growth of pines, hardwoods, vines, grass, and weedy shrubs. The closest source of water is a low-order stream approximately 60 m north of the site. Site dimensions are approximately 170-by-45 m, southwest-northeast, based on the excavation of seven positive and 25 negative shovel tests. No cultural materials were observed on the surface.

The Wagrum Sand at the site averages 10 to 20 cm of grayish-brown loamy sand over light yellowish-brown sand to depths of 60 to 80 cmbs. Substrate consists of friable light olive-brown sandy loam extending to over 100 cmbs in some locations. Artifacts were recovered from depths of 0 to 70 cmbs; no cultural features or distinct artifact-bearing deposits were noted during shovel testing.

Thirteen pieces of debitage [opaque/white coarse-grained quartz (n=7); rhyolite (n=6)] were recovered during the survey (Table 6.20). One thinning flake, reduction flakes (n=2) and flake fragments (n=10) comprise the survey inventory. These items indicate that limited lithic reduction activities occurred at this location during some unknown period in prehistory.

Table 6.20 Site 38LA747 Artifact Inventory

Tract	D	D	D	D	D	D	D	
Transect/Shovel Test, Surface (S)	22.5/13	21/10	21/12	21/14	21/15	22/11	22/13	
Shovel Test Depth (cm)	90	80	100	80	70	70	70	
Artifact Depth (cm)	60-70	40-60	50-60	0-20	30-50	10-20	30-40	
Bag Number	269	270	271	272	273	274	275	**Total**
Lithic Reduction								
Thinning Flake, rhyolite			1					**1**
Reduction Flake, rhyolite	1						1	**2**
Flake Fragment, quartz		2	1	1	2	1		**7**
rhyolite	3							**3**
Total	**4**	**2**	**2**	**1**	**2**	**1**	**1**	**13**

Site 38LA747 has been disturbed by land-clearing activities, cultivation, silviculture, and associated erosion. The deposits at this site exhibit low artifact density and diversity, and appear to represent transient

Facing North

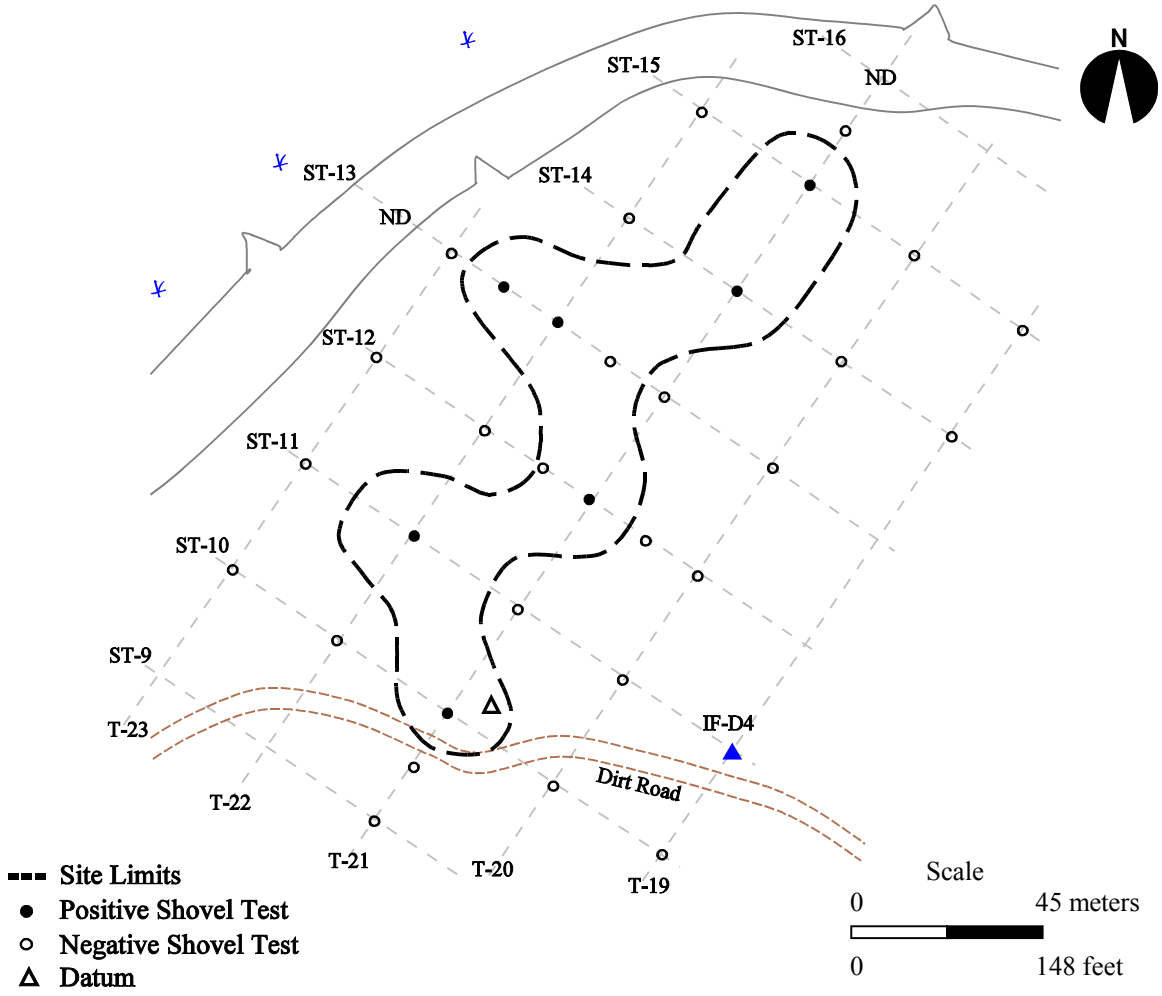


Figure 6.27 Site 38LA747, Photo and Sketch Map

use/occupation. For these reasons, the site possesses low research potential and is unlikely to retain important information on prehistoric lifeways in the study region. Site 38LA747 is recommended ineligible for the NRHP under Criterion (d) and no additional archeological work is warranted.

6.2.18 Site 38LA748

Site 38LA748 is a light, non-diagnostic lithic scatter detected along a dirt road accessed from Ernest Scott Road. The site is located on a broad ridge in the northwestern portion of Tract D-East (Figures 6.2a and 6.28). Beyond the dirt road, site vegetation consists of a pine/hardwood forest with moderate undergrowth. The closest natural water source is a wetland approximately 100 m north of the site. Site dimensions are estimated to be 50 by 30 m, northeast-southwest, based on the excavation of three positive and nine negative shovel tests. Dirt road clearing/grading activities offered exposed surfaces, but no surface artifacts were observed.

The soil at 38LA748 is classified as Blanton Sand; shovel test profiles show 20 cm of grayish-brown loamy sand plow zone resting on a yellowish-brown loamy sand to 80 cmbs. Substrate is a strong brown sandy loam. No cultural features or distinct artifact-bearing deposits were noted during shovel testing.

Three opaque/white, coarse-grained quartz flake fragments and a quartz thinning flake were recovered at varying depths between 30 and 60 cmbs (Table 6.21), indicating that lithic reduction activities were conducted here temporarily at some unknown point in prehistory.

Table 6.21 Site 38LA748 Artifact Inventory

Tract	D	D	D	
Transect/Shovel Test, Surface	23/6	23/7	23.5/6	
Shovel Test Depth (cm)	80	100	80	
Artifact Depth (cm)	40-60	30-40	50-60	
Bag Number	266	267	268	**Total**
Lithic Reduction				
Thinning Flake, quartz			1	**1**
Flake Fragment, quartz	2	1		**3**
Total	**2**	**1**	**1**	**4**

The archeological deposits at 38LA748 have been disturbed by land-clearing activities, cultivation, road grading and related erosion. Furthermore, these deposits exhibit low artifact density and diversity, and are confined to a small area, suggesting transient use. For these reasons, it is improbable that the archeological materials at this location retain important information on prehistoric settlement/use of the study region. Site 38LA748 is recommended ineligible for the NRHP under Criterion (d) and no additional archeological work is considered necessary.

6.2.19 Site 38LA749

Site 38LA749 is a light, non-diagnostic lithic scatter located near the base of a side slope in the northernmost portion of Tract D-East (Figures 6.2a and 6.29). The site overlooks a spring-fed wetland approximately 60 m to the southwest. Site vegetation consists of large hardwoods with a dense growth of vines, grass, briars,

Facing East

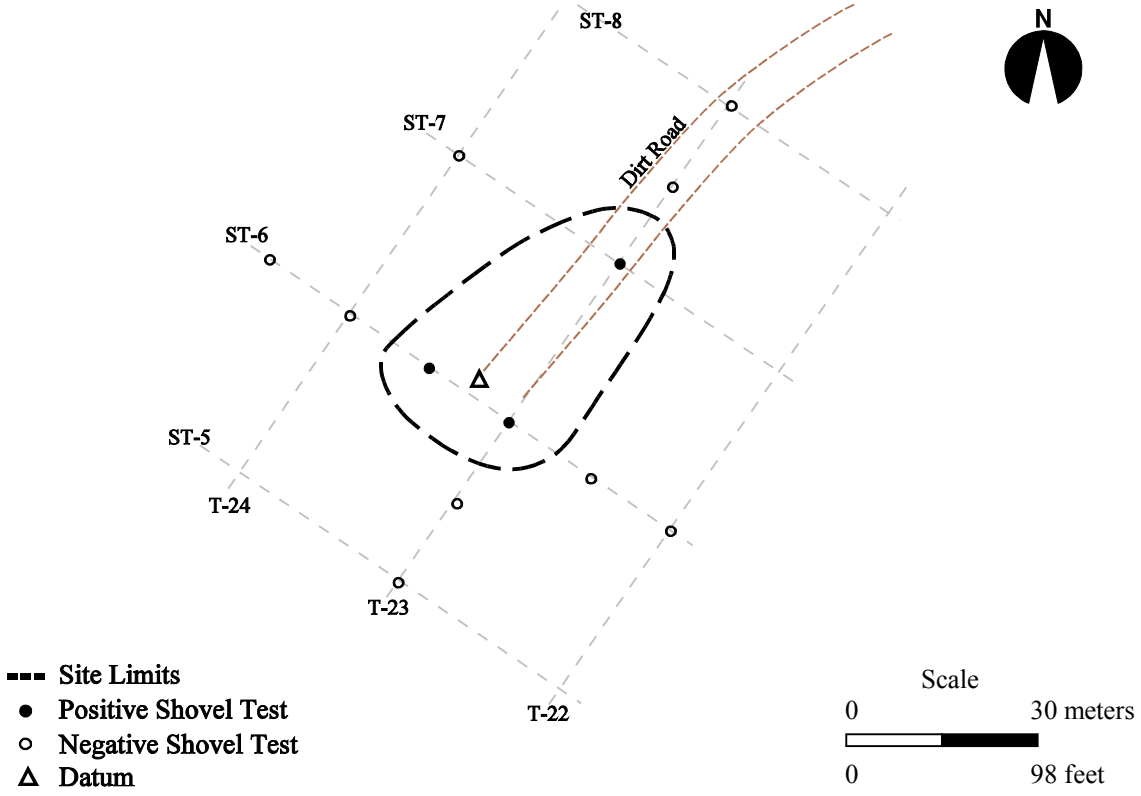


Figure 6.28 Site 38LA748, Photo and Sketch Map

Facing West

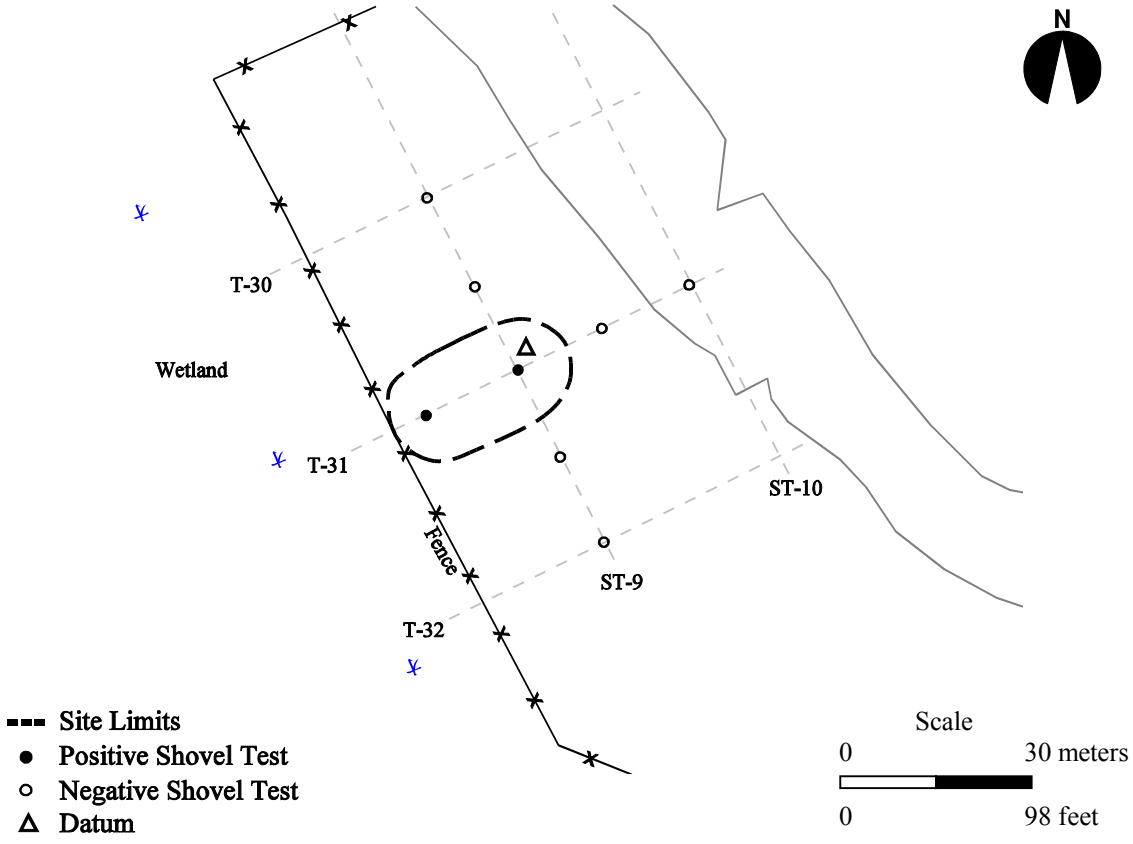


Figure 6.29 Site 38LA749, Photo and Sketch Map

river cane, and weedy shrubs. The dimensions of 38LA749 are approximately 30 by 15 m, southwest-northeast, as delineated by two positive and six negative shovel tests. No artifacts were observed or collected during surface inspections at the site.

Shovel testing at the site exposed Blanton Sand was a typical profile of 30 cm of dark grayish-brown loamy sand plow zone over 50 cm of light yellowish-brown loamy sand. Substrate consists of yellowish-brown (10YR 5/6) sandy clay loam to depths of at least 90 cmbs. Artifacts were recovered at 20 to 60 cmbs. No cultural features or distinct artifact-bearing deposits were noted during shovel testing.

Shovel testing produced 14 pieces of lithic debitage [opaque/white coarse-grained quartz (n=7); rhyolite (n=7)], including one reduction flake and 13 flake fragments (Table 6.22). These materials point to lithic reduction activities occurring during an unknown prehistoric period. Twelve of the artifacts were recovered from one shovel test, T-31/9, suggesting that a reduction locus was sampled during site delineation.

Table 6.22 Site 38LA749 Artifact Inventory

Tract	D	D	
Transect/Shovel Test, Surface (S)	31/9	31/9.5	
Shovel Test Depth (cm)	90	80	
Artifact Depth (cm)	30-60	20-40	
Bag Number	279	280	**Total**
Lithic Reduction			
Reduction Flake, rhyolite	1		**1**
Flake Fragment, quartz	7		**7**
rhyolite	4	2	**6**
Total	**12**	**2**	**14**

Site 38LA749 has been disturbed by land-clearing activities, cultivation, and associated soil erosion. The presence of a small quartz/rhyolite reduction locus shows that this site may retain some degree of depositional integrity and contextual clarity. However, considerable intensive archeological work has been conducted at 10 lithic sites of similar nature on Haile Gold Mine property (Cable and Price 2009, 2010; Keith *et al.* 2011; Patch *et al.* 2011). Given the small size, low artifact diversity, and modest artifact density of 38LA749 (compared to the 10 previously investigated sites), it appears unlikely 38LA749 retains archeological information that has not already been well documented during previous archeological investigations. On this basis, 38LA749 is viewed as ineligible for the NRHP under Criterion (d), and no additional archaeological investigation is advised.

6.2.20 Site 38LA750

Site 38LA750 is a sparse, non-diagnostic lithic scatter located on a ridge crest in the northern corner of Tract D-East (Figures 6.2a and 6.30). The site is currently in pasture grasses. The closest water source is a spring-fed wetland located approximately 240 m southwest and downslope of the site. This site covers a 15-m diameter area, based on the excavation of one positive and eight surrounding negative shovel tests. Surface visibility was limited in the grassy field and no artifacts were observed.

Facing South

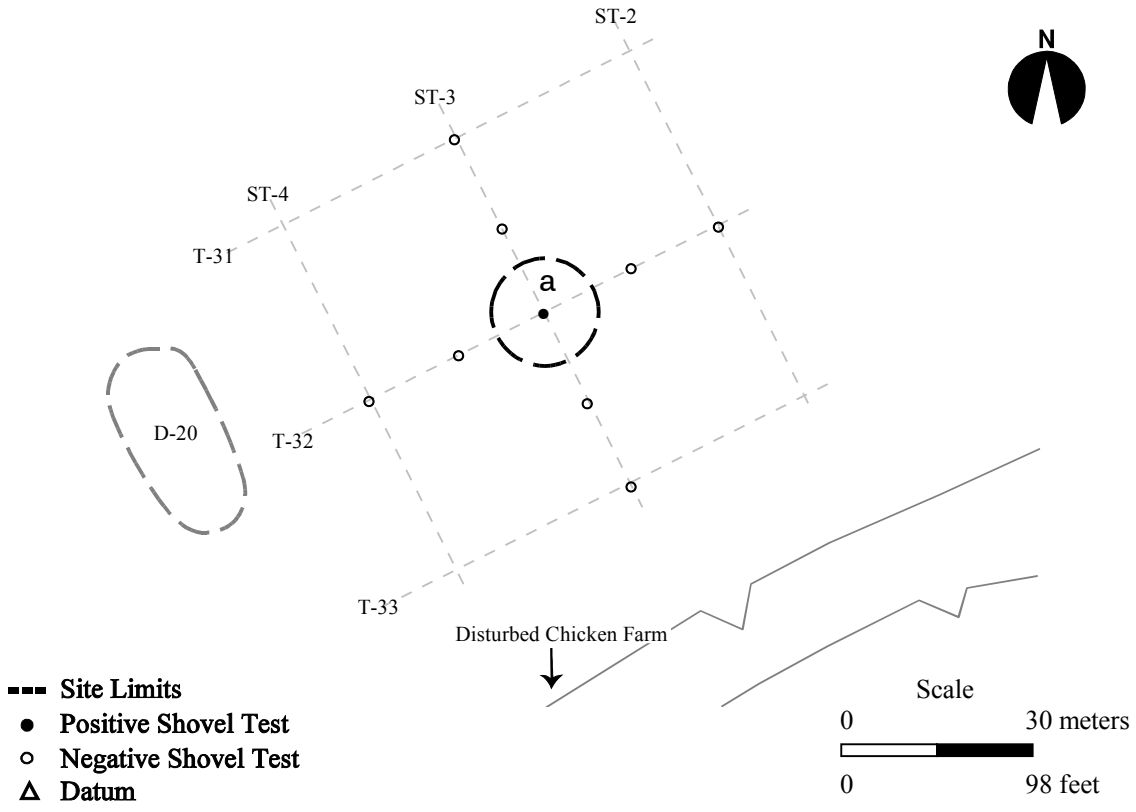


Figure 6.30 Site 38LA750, Photo and Sketch Map

Shovel test profiles (Blanton Sand) exhibited 30 cm of dark grayish-brown loamy sand plowzone, over yellowish-brown loamy sand to 50 cmbs; below this was a strong brown sandy loam with an increasing clay content. Artifacts were recovered from 30 to 60 cmbs. No obvious cultural features were encountered during shovel testing.

Table 6.23 Site 38LA750 Artifact Inventory

Tract	D	
Transect/Shovel Test, Surface (S)	32/3	
Shovel Test Depth (cm)	90	
Artifact Depth (cm)	30-60	
Bag Number	281	**Total**
Lithic Reduction		
Thinning Fragment, quartz	2	**2**
Flake Fragment, quartz	1	**1**
Total	**3**	**3**

The positive shovel test at 38LA750 contains three pieces of opaque/white coarse-grained quartz debitage, including one thinning flake and flake fragments (n=2) (Table 6.23). These items confirm only that short-tern lithic reduction activities occurred at the site during some unknown prehistoric period.

Site 38LA750 has been impacted by land clearing activities, historic cultivation, and related erosion. The archeological deposits display low artifact density/ diversity and the site is quite small. These facts make it unlikely that 38LA750 retains important archeological information that will advance research on prehistoric settlement/use of the Haile Gold Mine region. Site 38LA750 is recommended ineligible for the NRHP under Criterion (d), and no further archeological work is warranted.

6.2.21 Site 38LA751

Site 38LA751 is a discrete, non-diagnostic lithic scatter on a ridge in the northern corner Tract D-East (Figures 6.2a and 6.31). Located in a grassy clearing, the site overlooks a spring-fed wetland approximately 180 m southwest of the site. Site dimensions are estimated to be 30 by 15 m, northwest-southeast, as delineated by two positive and eight negative shovel tests. No artifacts were observed on surfaces in the grass-covered site area.

Soils at the site are classified as Blanton Sand and shovel test profiles average 30 cm of dark grayish-brown loamy sand plow zone over 40 to 50 cm of light yellowish-brown loamy sand. Substrate consists of brownish-yellow sandy clay loam to depths of 100 cmbs. Artifacts were noted at depths of 30 to 70 cmbs. No cultural features or distinct artifact-bearing strata were noted during shovel testing.

Table 6.24 Site 38LA751 Artifact Inventory

Tract	D	D	
Transect/Shovel Test, Surface (S)	32/5	31.5/5	
Shovel Test Depth (cm)	90	100	
Artifact Depth (cm)	50-70	30-60	
Bag Number	282	283	**Total**
Lithic Reduction			
Flake Fragment, quartz		2	**2**
rhyolite	1		**1**
Total	**1**	**2**	**3**

The two positive shovel tests at 38LA751 produced debitage consisting of quartz (n=2) and rhyolite (n=1) flake fragments (Table 6.24). These materials indicate only that temporary lithic reduction activities occurred here during some unknown prehistoric period.

Facing South

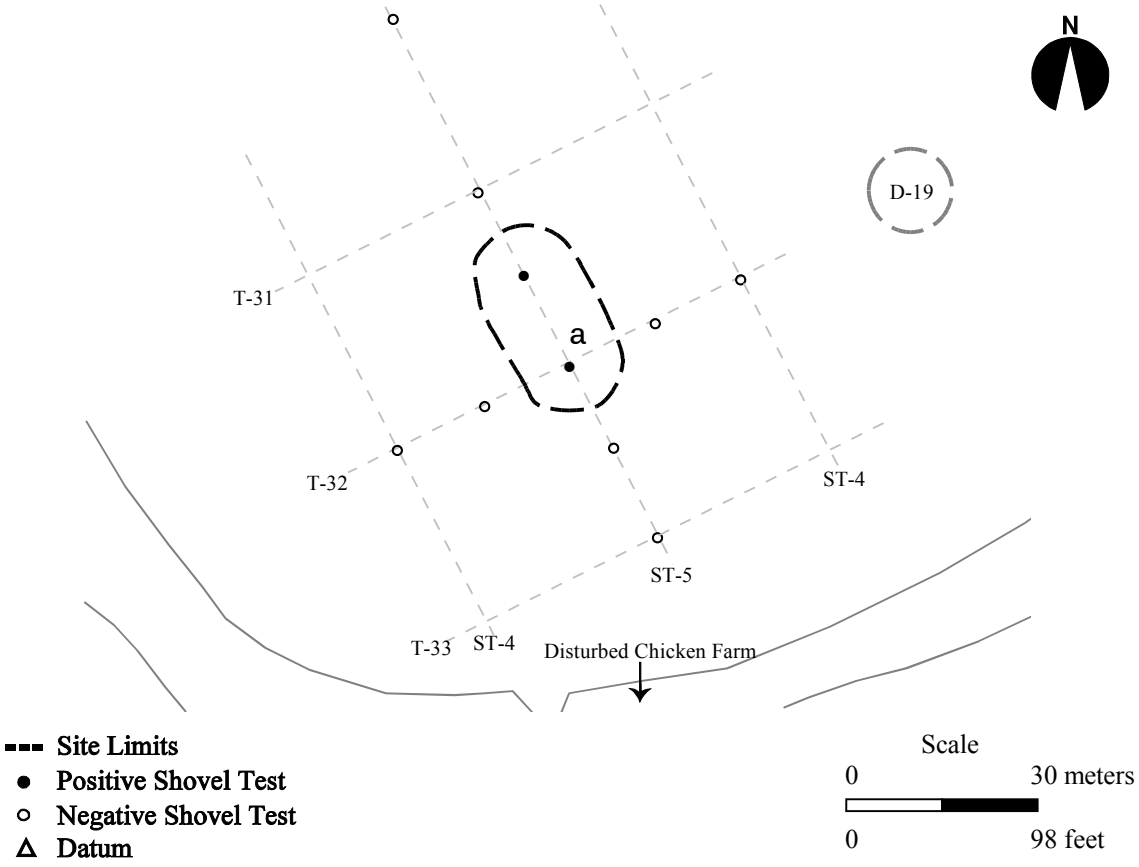


Figure 6.31 Site 38LA751, Photo and Sketch Map

Site 38LA751 has been disturbed by land-clearing activities, cultivation, and associated soil erosion. The archeological deposits lack artifact density/diversity, depositional integrity, and contextual clarity. For these reasons, this site is unlikely to retain significant archaeological information that would advance understanding prehistoric settlement/use of the study region. Site 38LA751 is considered ineligible for the NRHP under Criterion (d) and no further work is recommended for this site.

6.2.22 Site 38LA752

Site 38LA752 is a non-diagnostic, quartz lithic scatter located on the edge of an upland flat along the northern edge of Tract D-East, south of Old Jefferson Highway/SR 265. The head of spring-fed wetland is located downslope 120 m east-southeast of the site (Figures 6.2a and 6.32). Vegetation at the site reflects 20th century residential landscaping; prior to the current survey, houses in this area were relocated, leaving only the landscaped vegetation signatures. Site dimensions are estimated to be 55 by 30 m, north-south, based on the excavation of two positive and 12 negative shovel tests. Past landscaping activities provided surface visibility over the site/tract area, but no surface artifacts were observed.

Site shovel testing exposed profiles of Blanton Sand averaging 20 cm of dark grayish-brown, loamy sand, over 50 cm of yellowish-brown loamy sand, which was underlain by strong brown sandy loam with increasing clay content. Artifacts were recovered from below the plow zone at 20 to 60 cmbs. No cultural features or distinct artifact-bearing deposits were observed.

Table 6.25 Site 38LA752 Artifact Inventory

Tract	D	D	
Transect/Shovel Test, Surface (S)	47/2	47/3	
Shovel Test Depth (cm)	80	80	
Artifact Depth (cm)	20-60	30-50	
Bag Number	358	359	**Total**
Lithic Reduction			
Flake Fragment, quartz	3	1	**4**
Total	**3**	**1**	**4**

Four opaque/white coarse-grained quartz flake fragments were recovered during shovel testing (Table 6.25). These items indicate only that lithic reduction activity was conducted here for a short time during an unknown prehistoric period.

Site 38LA752 has been disturbed by land-clearing, 20th century residential landscaping, cultivation, and related erosion. The archeological deposits at this location are sparsely populated with artifacts and exhibit minimal artifact diversity. On this basis, it is improbable that this site retains the cultural materials necessary to produce important archeological information that could address important research questions about the prehistoric settlement and use of the study region. Site 38LA752 is viewed as ineligible for the NRHP under Criterion (d) and no additional archeological work is recommended.

6.2.23 Site 38LA753

Site 38LA753 is a large generally diffuse, non-diagnostic lithic scatter with a minor ceramic component. The site is located on the end of a large ridge in the northern portion of Tract D-East, south of Gillie Mackey

Facing South

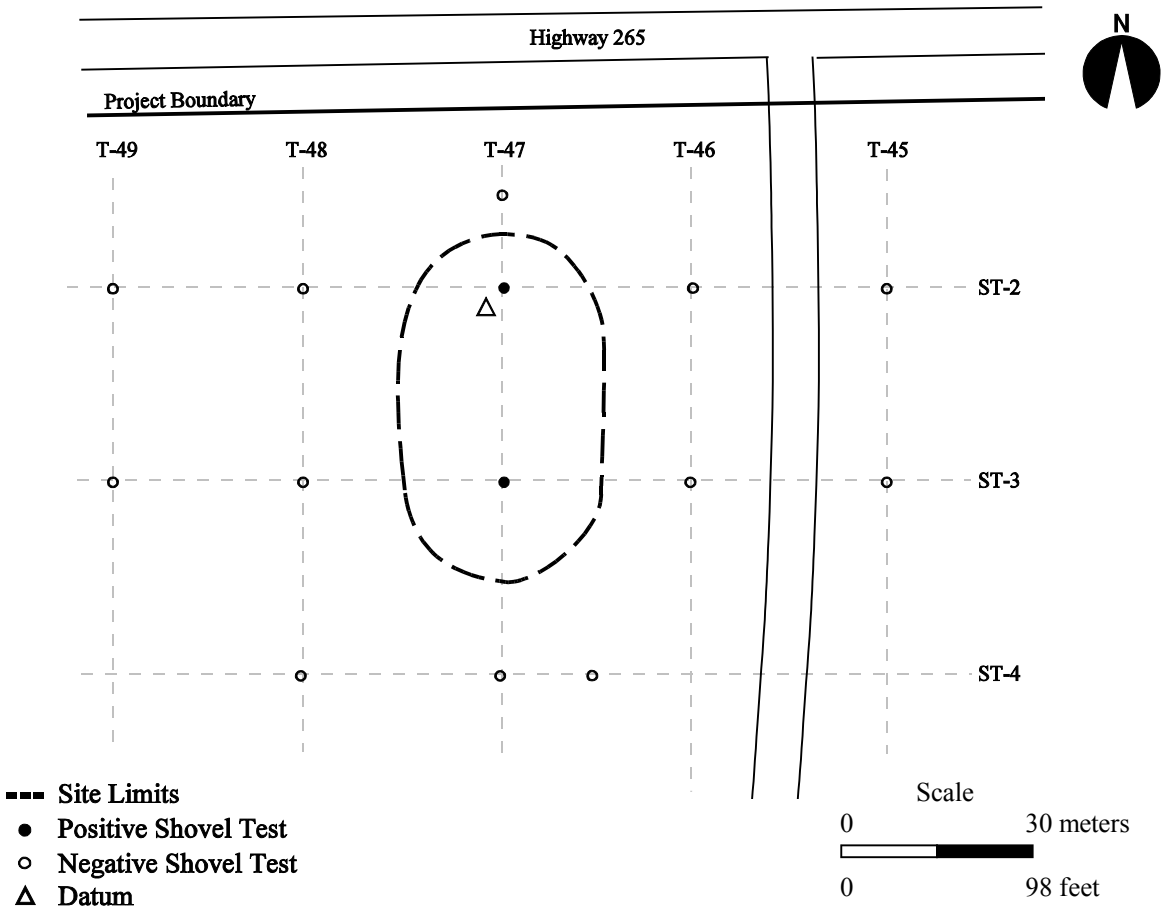


Figure 6.32 Site 38LA752, Photo and Sketch Map

Road (Figures 6.2a and 6.33). The site is in a landscaped residential area surrounded by regenerative pines and hardwoods; parts of the site retain isolated mature hardwoods and ornamentals. Structures in this area were relocated prior to the current survey. A pet cemetery is adjacent to the western site boundary. The closest natural water sources are spring-fed low-order streams approximately 100 to 130 m south, east, and west of the site. Site dimensions are estimated to be 185 by 90 m, northwest-southeast, based on 11 positive and 34 negative shovel tests. Past landscaping activities provided surface visibility over the site area, but no surface artifacts were observed.

Soils are classified as Blanton Sand; soil profiles average 15 to 20 cm of grayish-brown loamy sand over light yellowish-brown sand ending at 60 to 80 cmbs. Substrate consists of friable, strong brown sandy loam extending to depths beyond 100 cmbs. Artifacts were recovered from 10 to 80 cmbs. No cultural features or distinct artifact-bearing deposits were noted during shovel testing.

Fifty-seven pieces of lithic debitage and one ceramic sherd were recovered during the survey (Table 6.26). The debitage consists of thinning flakes (n=7), reduction flakes (n=3), flake fragments (n=46), and one piece of shatter. The lithics are made of clear/milky white and opaque/white coarse-grained quartz (n=33), rhyolite (n=21), banded rhyolite (n=1), and metavolcanics (n=2). The sherd is sand-tempered with a plain surface treatment. Two shovel tests (T53/5 and T58/6) exhibited markedly higher artifact density than the other tests, suggesting fairly well-defined activity loci. Both shovel tests contained quartz and rhyolite debitage at 10 to 60 cmbs, with the heavier concentration at T-53/5 (n=30). Of the 11 positive shovel tests, ten contained sub-plow zone deposits between 20 and 80 cmbs. The survey artifact inventory indicates that lithic reduction and possibly tool manufacture/repair took place at this location during one or more prehistoric periods including the Woodland period.

Table 6.26 Site 38LA753 Artifact Inventory

Tract	D	D	D	D	D	D	D	D	D	D	D	
Transect/Shovel Test, Surface (S)	53/4	53/5	53/6	54/3	54/4	55/2	55/5	56/4	58/6	58/7	58.5/6	
Shovel Test Depth (cm)	90	100	90	60	60	90	100	90	90	80	70	
Artifact Depth (cm)	50-60	20-60	20-40	30-60	30-60	40-70	60-80	20-50	10-60	30-60	20-50	
Bag Number	360	361	362	363	364	367	368	369	370	371	372	**Total**
Lithic Reduction												
Thinning Flake, quartz		1								1		**2**
rhyolite		3	1							1		**5**
Reduction Flake, quartz		1										**1**
rhyolite									1			**1**
metavolcanic											1	**1**
Flake Fragment, quartz	2	14		1	1	2	1	1	6		1	**29**
rhyolite		11		1				1	2			**15**
banded rhyolite										1		**1**
metavolcanic									1			**1**
Shatter, quartz			1									**1**
Cooking/Containment												
Ceramic, plain									1			**1**
Total	**2**	**30**	**2**	**2**	**1**	**2**	**1**	**2**	**11**	**3**	**2**	**58**

Facing South

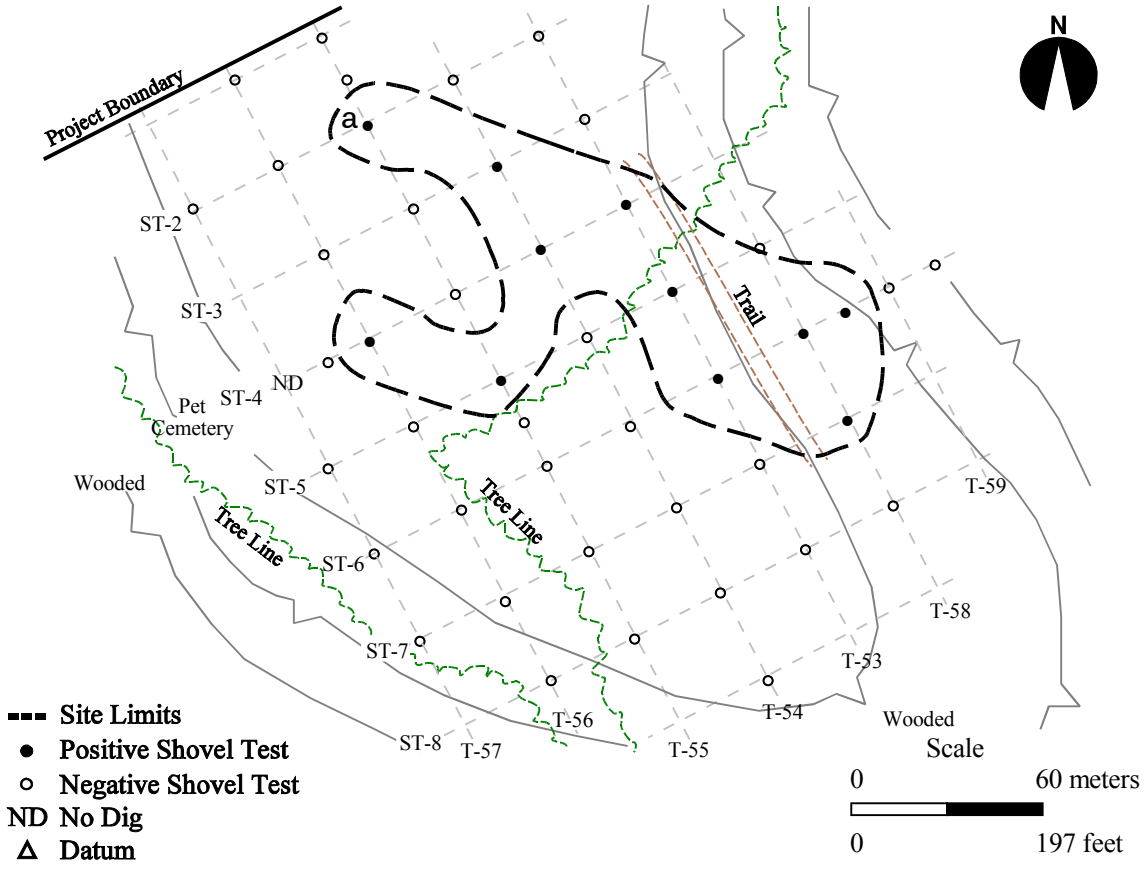


Figure 6.33 Site 38LA753, Photo and Sketch Map

Site 38LA753 has been disturbed by land-clearing activities, landscaping, cultivation, pine silviculture, and related erosion; however, archeological deposits have been documented below the sub-plow zone and two locations were identified that could represent prehistoric activity areas. Given these findings, a NRHP eligibility recommendation under Criterion (d) could not be formulated for 38LA753. Phase II evaluation is recommended to determine if the site retains intact features, middens, subsistence remains, temporally sensitive artifacts/datable biotic materials, and/or other remains that are likely to significantly expand our knowledge on the prehistoric settlement and/or use of the study region. Future proposed work should concentrate on sub plow zone deposits with high artifact density; more specifically near the high-yield shovel tests, T-53/5 and T-58/6. Limited additional shovel testing and test unit excavations are recommended in these areas.

6.2.24 Site 38LA754

Site 38LA754 is a late 19th to middle 20th century artifact scatter with a limited prehistoric lithic component; the site covers a ridge spur in the southeastern portion of Tract G. The Buffalo Hunting Club's property line forms the eastern boundary of the Project Area.(Figures 6.2b and 6.34). A push pile of brick and stone measuring 4 by 4 m is present between shovel tests T-59.5/10 and T-59/10 at the north end of the site and probably represents the foundations of a structure once at or near this location. Site 38LA754 is located in a regenerative loblolly pine forest with a light undergrowth of vines and saplings. The closest water source is a spring-fed wetlands located approximately 150 m west. Site dimensions are approximately 120 by 75 m, northeast-southwest, based on the excavation of 11 positive and 17 negative shovel tests. Pine straw and underbrush greatly limited surface visibility.

Blanton Sand was exposed during shovel testing and revealed 10 to 30 cm of dark grayish-brown sandy loam, over 30 to 50 cm of yellowish-brown sand, underlain by 20 cm of brownish-yellow sandy loam with reddish-yellow concretions. Artifacts were recorded at 0 to 70 cmbs. No cultural features or distinct artifact-bearing deposits were noted during shovel testing.

A total of 62 artifacts were collected during shovel testing, including 15 prehistoric lithics and 47 historic artifacts (Table 6.27). Prehistoric items are all debitage [thinning flake (n= 1); reduction flakes (n=3); flake fragments (n=11)] manufactured from clear/milky white and opaque/white coarse-grained quartz (n=12) or rhyolite (n=3). The recovery of quartz and rhyolite debitage suggests that lithic reduction activity occurred at this place during some unknown prehistoric period. The densest concentration of debitage was identified at shovel test T-61/10 (n=12) at 30 to 70 cmbs. A quartz reduction locus may have been sampled at this location.

Historic artifacts include a combination of kitchen/subsistence [whiteware (n=3); bottle glass (n=19); tin can scraps (n=4)], architectural/structural [wire nails (n=5); brick (n=9); wire (n=2)], activities-related (one

Facing West

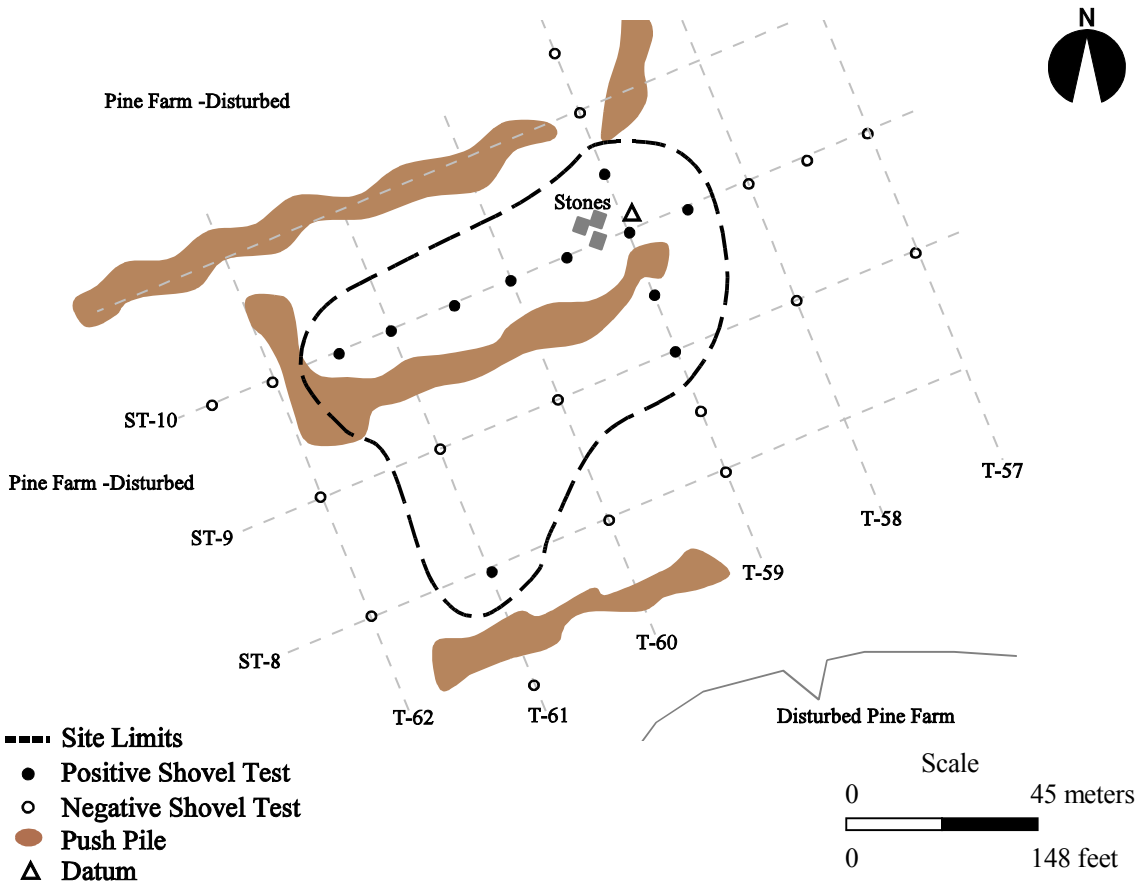


Figure 6.34 Site 38LA754, Photo and Sketch Map

Table 6.27 Site 38LA754 Artifact Inventory

Tract	G	G	G	G	G	G	G	G	G	G	G	
Transect/Shovel Test, Surface (S)	59/9	59/9.5	59/10.5	59/10	59.5/10	60/10	60.5/10	61/10	61.5/10	61/8	58.5/10	
Shovel Test Depth (cm)	70	50	70	90	90	90	90	100	100	90	60	
Artifact Depth (cm)	30-40	0-20	0-20	0-30	0-10	0-30	0-20	30-70	30-60	0-60	0-20	
Bag Number	187	188	189	190	191	192	193	194	195	196	197	**Total**
PREHISTORIC												
Lithic Reduction												
Thinning Flake, rhyolite		1										**1**
Reduction Flake, quartz								3				**3**
Flake Fragment, quartz								9				**9**
rhyolite	1								1			**2**
Prehistoric Total	**1**	**1**						**12**	**1**			**15**
HISTORIC												
Kitchen/Subsistence												
Whiteware, plain				1		2						**3**
Bottle Glass, clear		4		2	1	3						**10**
clear machine made				1								**1**
amber		1				1						**2**
aqua				3		1						**4**
light green				2								**2**
Tin Can			1	1		2						**4**
Architectural/Structural												
Nail, wire						3	2					**5**
Brick Fragment, machine made											1	**1**
unidentifiable		1	1	3		1	1			1		**8**
Iron Wire				2								**2**
Activities												
Marble, glass						1						**1**
Miscellaneous												
Band/Strap, iron		1										**1**
Unidentifiable, iron						1						**1**
Unidentifiable, rubber										1		**1**
Coal				1								**1**
Historic Total		**7**	**2**	**16**	**1**	**15**	**3**			**2**	**1**	**47**
GRAND TOTAL	**1**	**8**	**2**	**16**	**1**	**15**	**3**	**12**	**1**	**2**	**1**	**62**

marble), and miscellaneous [coal (n=1); iron band/strap (n=1); unidentifiable iron (n=1); unidentifiable rubber (n=1)] materials (Figure 6.35). The heaviest concentration of historic artifacts occurred at shovel test stations T-59/10 (n=16) and T-60/10 (n=15). Historic maps and aerials show no structures that correspond to the location of 38LA754. The presence of machine-made brick, wire nails, whiteware, and machine-made clear bottle glass point to a very late 19th to middle 20th century house site. All historic artifacts were recovered from the 0 to 30 cm-thick plow zone. Furthermore, rows of push piles were aligned both north and south of the central site area. The southern row of push piles contained sheet metal and banded iron fragments, suggesting one or more razed structures.

Glass Marble, T-60/10 (Actual Size)

Figure 6.35 Site 38LA754, Selected Artifact

Site 38LA754 has been heavily disturbed from land clearing, cultivation, pine silviculture, razing/grading, and general soil erosion. The presence of a small quartz reduction locus shows that this site may retain some degree of depositional integrity and contextual clarity. However, considerable intensive archeological work has been conducted at 10 lithic sites of similar nature on Haile Gold Mine property (Cable and Price 2009, 2010; Keith *et al.* 2011; Patch *et al.* 2011). Given the low artifact diversity, and overall low artifact density of this prehistoric component (compared to the 10 previously investigated sites), it appears unlikely 38LA754 retains prehistoric archeological information that has not already been well documented during previous archeological investigations. On this basis, the prehistoric component at 38LA754 is viewed as ineligible for the NRHP under Criterion (d), and no additional archaeological investigation is advised.

Regarding the historic component at 38LA754, artifacts were confined to the plow zone and the rows of push piles indicate that the site was razed/graded and a high percentage of the historic archeological deposits have been consolidated into these push piles. Given the lack of depositional integrity and contextual clarity, and the fact that the site was occupied into the middle 20th century, it is unlikely that 38LA754 retains important information of late 19th or early 20th century settlement of the study region. The historic component of the site is recommended ineligible for the NRHP under Criterion (d) and no further work is warranted.

6.2.25 Site 38LA755

Site 38LA755 is a small lithic and ceramic scatter located along the edge of a ridge overlooking a steep side slope in the northwestern part of Tract L-West (Figures 6.2b and 6.36). Situated in a clearing next to a modern home site, the site is adjacent to a full canopy pine/hardwood forest with a moderate undergrowth of vines, shrubs, and dominant species saplings. A northwest-southeast dirt road traverses the southern site area. The closest source of water is a low-order stream/wetland approximately 160 m southeast of the site. Site dimensions are estimated to be 90 by 60 m, southeast-northwest, as determined by the excavation of five positive and 13 negative shovel tests. Surface visibility was limited and no surface artifacts were noted.

Site shovel test profiles exhibited Blanton Sand with an average of 10 cm of light grayish-brown sand plow zone over 50 to 70 cm of light yellowish-brown loamy sand. The substrate consists of a friable yellowish-brown sandy loam extending to depths beyond 100 cmbs. Artifacts were recovered from depths of 20 to 60 cmbs; no distinct archeological features or artifact bearing strata were observed.

Sixteen prehistoric artifacts were recovered during shovel testing at 38LA755, including 15 lithics and one crushed quartz-tempered sherd (Table 6.28). Lithics consist of milky white coarse grained quartz (n=10) and rhyolite (n=4) debitage [thinning flakes (n=2); reduction flakes (n=1); and flake fragments (n=11)] and a small to medium side-notched rhyolite PP/K similar to the Early to Middle Woodland Coosa type. The sherd has a Deptford Simple-stamped surface treatment and dates to the Middle Woodland period (Figure 6.37). The survey artifact inventory indicates that lithic reduction, hunting/piercing/cutting, and cooking/

Facing North

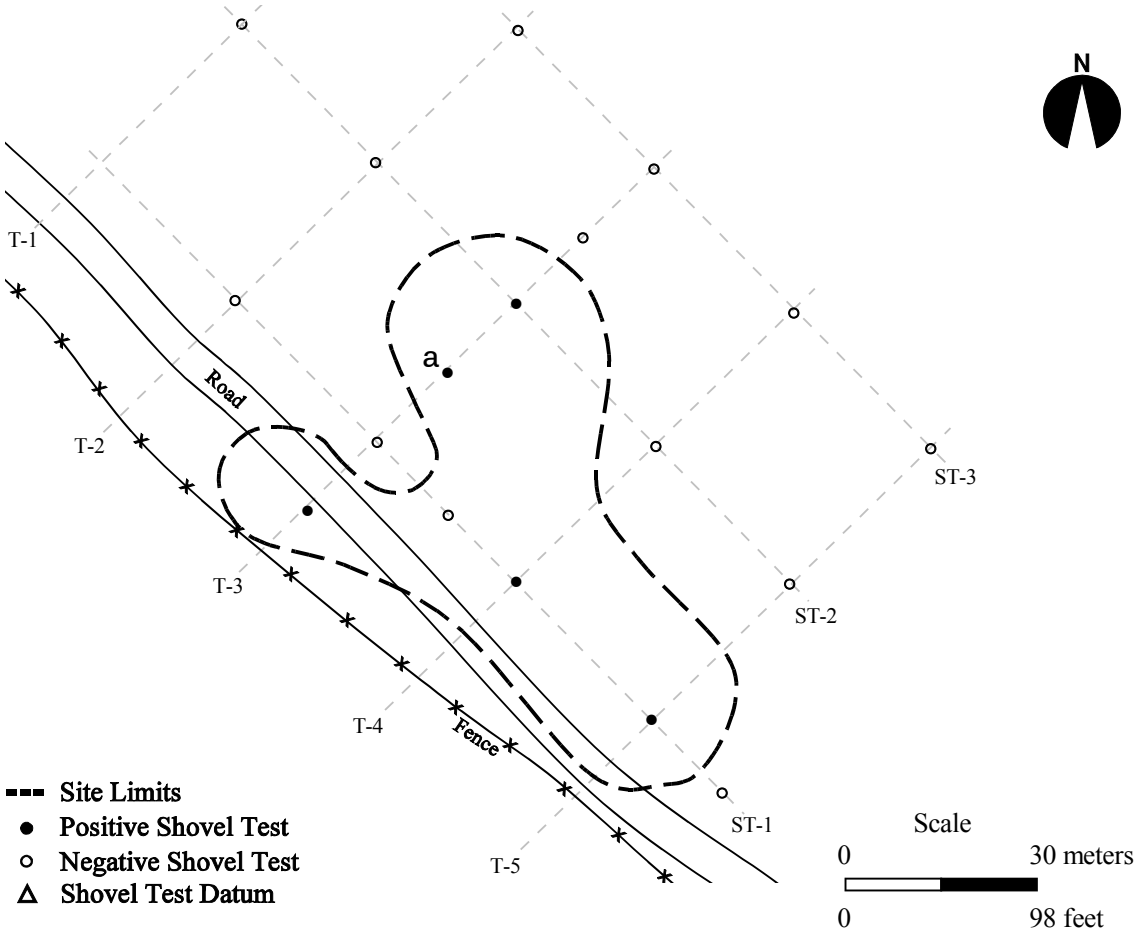


Figure 6.36 Site 38LA755, Photo and Sketch Map

containment activities took place at this location during the Middle Woodland period.

Table 6.28 Site 38LA755 Artifact Inventory

Tract	L	L	L	L	L	
Transect/Shovel Test, Surface (S)	3/2	4/1	5/1	3/0.5	3/1.5	
Shovel Test Depth (cm)	80	70	90	70	80	
Artifact Depth (cm)	0-50	30-40	30-50	30-50	20-60	
Bag Number	295	304	308	319	320	**Total**
Lithic Reduction						
Thinning Flake, rhyolite	2					**2**
Reduction Flake, rhyolite			1			**1**
Flake Fragment, quartz	8	1			1	**10**
rhyolite	1					**1**
Formal Tools						
PP/K, rhyolite-Coosa side notched				1		**1**
Cooking/Containment						
Deptford simple stamped					1	**1**
Total	**11**	**1**	**1**	**1**	**2**	**16**

The majority of the survey artifacts (n=11) were taken from shovel test T-3/2, which may have sampled a quartz reduction locus. Middle Woodland diagnostics were recovered in two of the five positive shovel tests. Rhyolite, the material used to manufacture the Coosa-like PP/K, was recovered from two other shovel tests, and this may be a indication that the rhyolite at 38LA755 was being reduced by Middle Woodland groups. On this basis, it is possible that 38LA755 may be a single component Middle Woodland residential camp or task camp location.

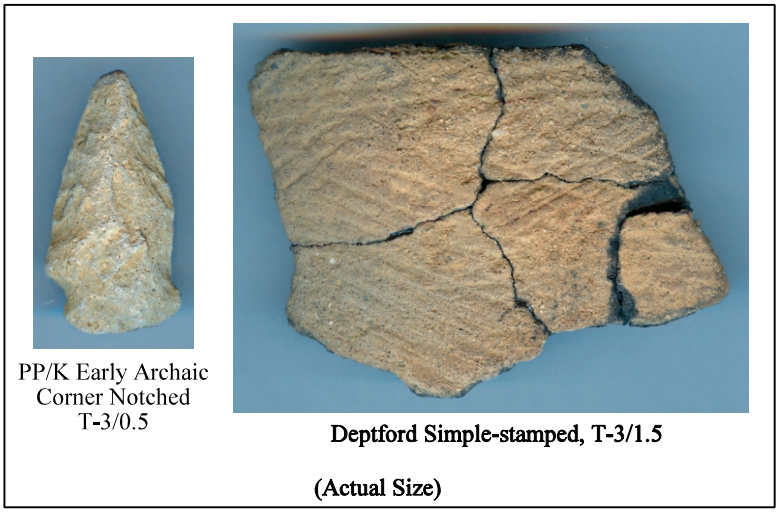


Figure 6.37 Site 38LA755, Selected Artifacts

Site 38LA755 has been disturbed by land clearing, cultivation, and associated erosion; however, Middle Woodland diagnostic artifacts were recovered from possible sub-plow zone cultural deposits. Collectively, the artifacts suggest a minor quartz reduction area within a Middle Woodland temporary camp or residential setting that has not been affected by intensive reoccupation over many millennia. Based on the survey findings, a NRHP eligibility recommendation for Site 38LA755 under Criterion (d) could not be formulated. Therefore, Phase II archaeological evaluation is recommended to establish if the site retains intact features, middens, subsistence remains, temporally sensitive artifacts/datable biotic materials, and/or other remains that are likely to significantly expand knowledge on Middle Woodland settlement and/or use of the study region. It is advised that Phase II evaluation include limited additional shovel testing in the vicinity of shovel tests T-3/1.5, T-3/2 and T-3/0.5 to further define the site, followed by limited structured test unit excavations.

6.2.26 Site 38LA756

Site 38LA756 is a small, non-diagnostic quartz lithic scatter situated on a broad ridge along the northwestern edge of Tract L-West (Figures 6.2b and 6.38). The site is in a large clearing dotted by push piles and small saplings. The terrain slopes gently then steeply toward a low-order stream/wetland approximately 300 m to the southeast. The site covers an area of approximately 30 by 15 m, northeast-southwest, based on the excavation of two positive and six negative shovel tests. Though exposed surfaces were present at the site, no artifacts were observed. The tract northwest of Tract L-West was surveyed by Southeastern Archeological Services in 1993 and no archeological site was recorded abutting the tract boundary adjacent to 38LA756; therefore, it is assumed that the site is limited to Tract L-West.

Site soils are classified as Blanton Sand, with profiles consisting of 20 cm grayish-brown loamy sand, over 60 cm of yellowish-brown loamy sand. The substrate is a strong brown sandy loam. Artifacts were encountered in shovel tests T-1/5 and T-1/4.5 at 20 to 60 cmbs. No cultural features or distinct archeological strata were observed.

The prehistoric assemblage consists of white/opaque coarse-grained quartz debitage (n=6); specifically, one thinning flake, a reduction flake, and flake fragments (n=4) (Table 6.29) The debitage indicates only that lithic reduction activity was conducted temporarily at the site during some unknown prehistoric period.

Table 6.29 Site 38LA756 Artifact Inventory

Tract	D	D	
Transect/Shovel Test, Surface (S)	1/5	1/4.5	
Shovel Test Depth (cm)	90	80	
Artifact Depth (cm)	40-60	20-60	
Bag Number	285	315	**Total**
Lithic Reduction			
Thinning Flake, quartz		1	**1**
Reduction Flake, quartz	1		**1**
Flake Fragment, quartz	1	3	**4**
Total	**2**	**4**	**6**

Impact to the archeological deposits at 38LA756 by land clearing activities, cultivation, grading, and related soil erosion appear to be confined to the surficial 20 to 30 cm. However, artifact density and diversity are low and the site is confined to a small area. Because of these factors, it is unlikely that this site retains important information on prehistoric lifeways in the study region. Site 38LA756 is recommended as ineligible for the NRHP under Criterion (d) and no additional archaeological work is advised.

6.2.27 Site 38LA757

Site 38LA757 is a discrete, non-diagnostic lithic scatter located on a broad ridge along the northwest central boundary of Tract L-West (Figures 6.2b and 6.39). The site is within a graded clearing. The closest source of water is a low-order stream/wetland approximately 300 m southeast of the site. The dimensions of 38LA757 are estimated to be 15 m in diameter, as determined by one positive and six negative shovel tests. No artifacts were observed or collected from exposed surfaces at the site. The tract northwest of Tract L-

Facing East

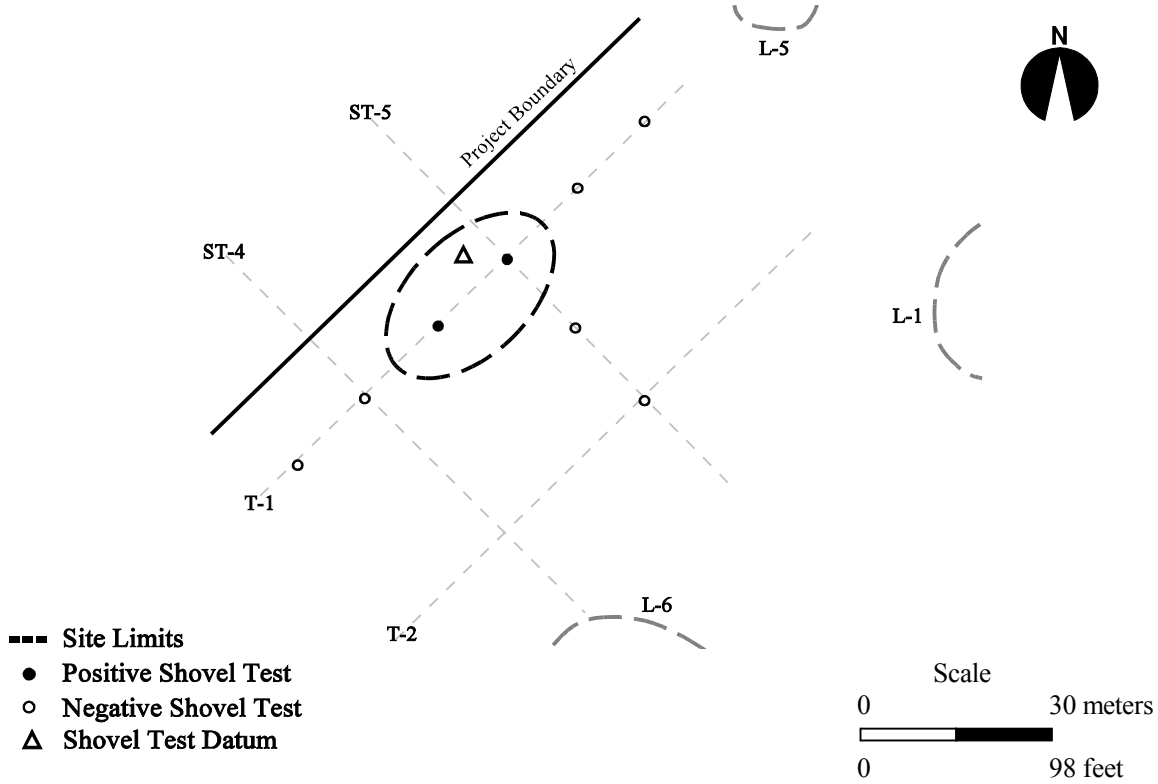


Figure 6.38 Site 38LA756, Photo and Sketch Map

Facing East

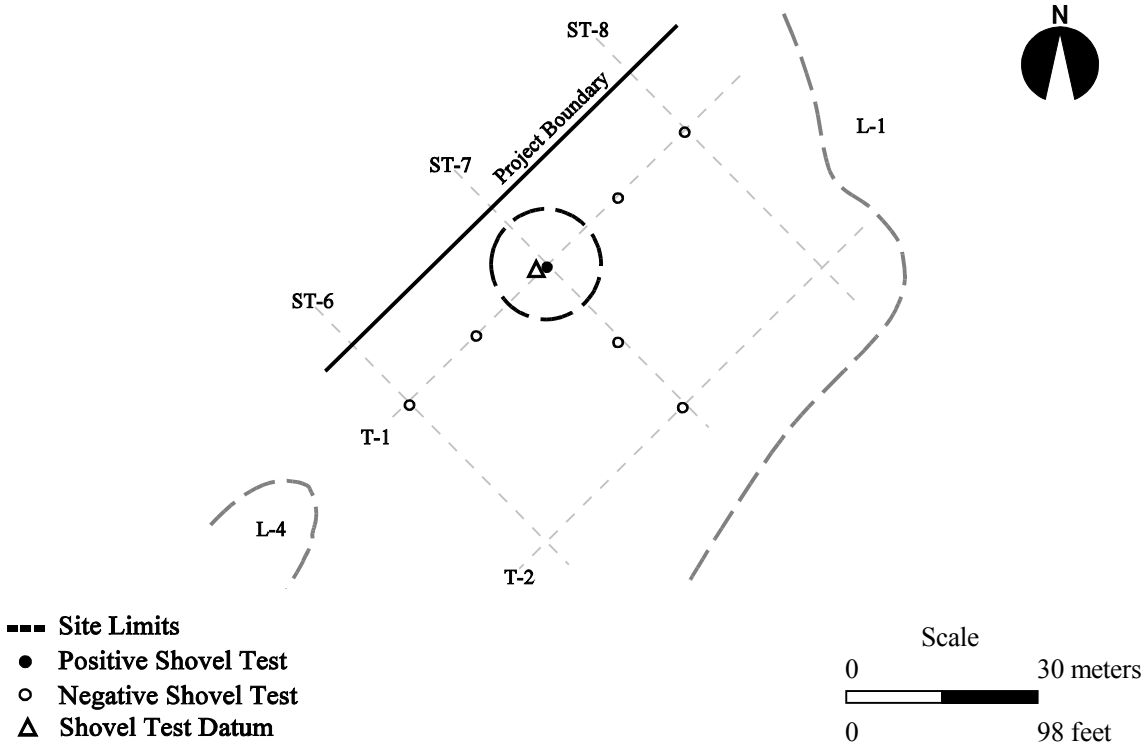


Figure 6.39 Site 38LA757, Photo and Sketch Map

West was surveyed by Southeastern Archeological Services in 1993 and no archeological site was recorded abutting the tract boundary adjacent to 38LA757; therefore, it is assumed that the site is limited to Tract L-West.

Soils at this site were identified as Blanton Sand and exhibit a profile of 20 cm of grayish-brown loamy sand plow zone resting on yellowish-brown loamy sand to 50 cmbs. This stratum sits on a strong brown sandy loam substrate to depths of at least 80 cmbs. Artifacts were recovered at 40 to 60 cmbs and no distinct cultural features or artifact-bearing strata were noted during shovel testing.

Four opaque/white coarse-grained quartz flake fragments were recovered from the sole positive shovel test (Table 6.30). These artifacts suggest only that limited lithic reduction activity was conducted at this location during some unknown prehistoric period.

Table 6.30 Site 38LA757 Artifact Inventory

Tract	D	
Transect/Shovel Test, Surface (S)	1/7	
Shovel Test Depth (cm)	80	
Artifact Depth (cm)	40-60	
Bag Number	286	**Total**
Lithic Reduction		
Flake Fragment, quartz	4	**4**
Total	**4**	**4**

Because of their depth, the archeological deposits at 38LA757 do not appear to have been significantly affected by land clearing activities, cultivation, grading, and related soil erosion. However, artifact density and diversity are low and the site is defined by a single positive shovel test. On this basis, the site is unlikely to retain important information on prehistoric settlement/use of the study region. Site 38LA757 is considered ineligible for the NRHP under Criterion (d) and no further archeological work is recommended.

6.2.28 Site 38LA758

Site 38LA758 is a non-diagnostic lithic scatter on the same broad ridge with four other prehistoric sites along the northwestern edge of the Tract L-West. Located in a large clearing next to a modern house site, this resource is on the edge of the ridge overlooking a low-order stream/wetland approximately 200 m to the southeast (Figures 6.2b and 6.40). The site covers an area measuring approximately 65 by 30 m, northwest-southeast, based on four positive and 11 negative shovel tests. One artifact was observed and collected from the surface near shovel test T-4/4.

Site soils are classified as Blanton Sand with profiles of 20 cm grayish-brown loamy sand plow zone, over 60 cm of yellowish-brown loamy sand. The substrate is a strong brown sandy loam. Artifact-bearing deposits were encountered at between 20 to 60 cmbs. No distinct cultural features or archeological strata were noted during the shovel testing.

Artifacts from 38LA758 were manufactured from white/opaque coarse-grained quartz (n=10) and rhyolite (n=1), and consist of flake fragments (n=10) and a late stage biface fragment (Table 6.31; Figure 6.41). A

Facing East

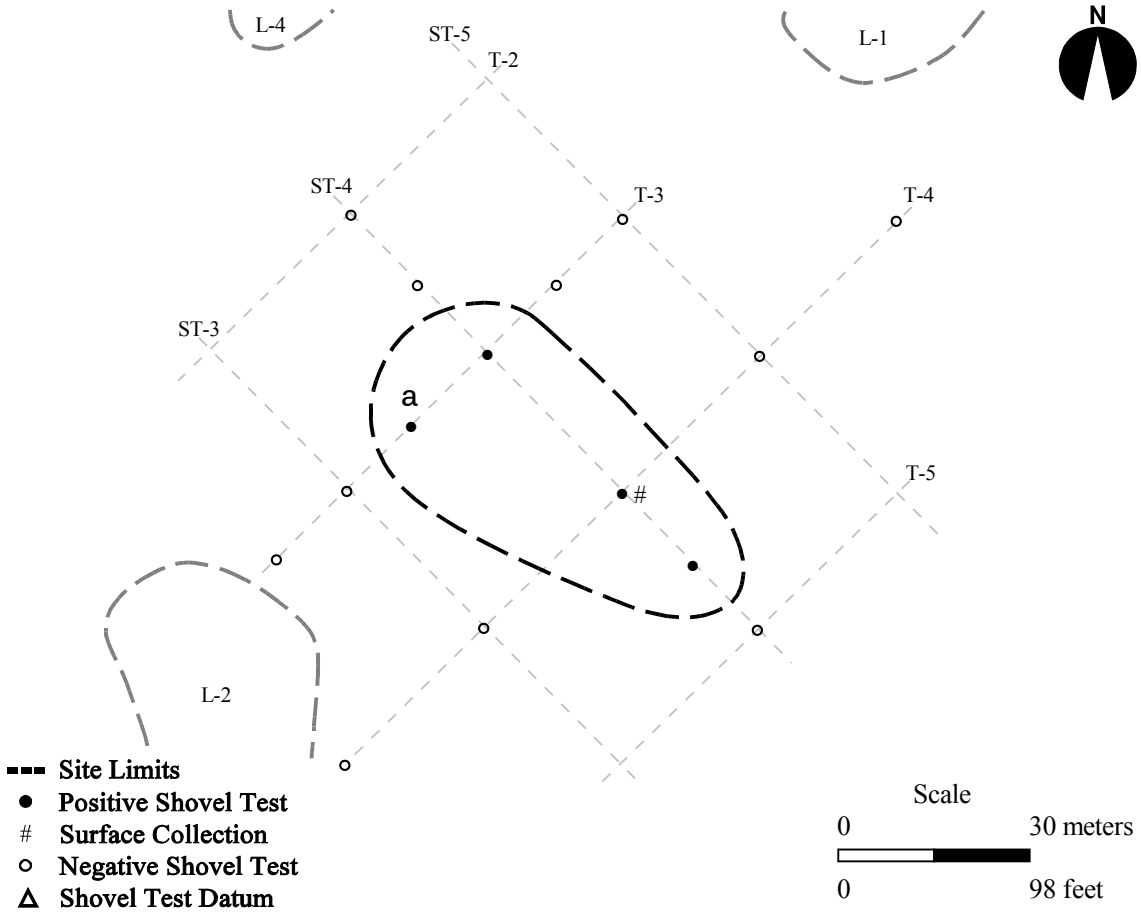


Figure 6.40 Site 38LA758, Photo and Sketch Map

minor quartz reduction area may have been sampled by shovel test T- 4/4, where six flake fragments were found. Overall, these materials indicate that lithic reduction and biface manufacturing activities took place here for a short period of time at some unknown point in prehistory.

Late Stage Biface (Woodland Triangular Preform), Surface

Figure 6.41 Site 38LA758, Selected Artifact

Table 6.31 Site 38LA758 Artifact Inventory

Tract	L	L	L	L	L	
Transect/Shovel Test, Surface (S)	3/4	4/4	3/3.5	S	4.5/4	
Shovel Test Depth (cm)	80	70	90		60	
Artifact Depth (cm)	30-50	0-20	30-50		40-60	
Bag Number	296	305	316	317	318	**Total**
Lithic Reduction						
Flake Fragment, quartz	1	5	2		1	**9**
rhyolite		1				**1**
Core/Biface Manufacture						
Late Stage Biface, quartz				1		**1**
Total	**1**	**6**	**2**	**1**	**1**	**11**

Site 38LA758 has been impacted by land clearing activities, cultivation, grading, and related soil erosion. Although one shovel test may have sampled a minor quartz reduction locus, materials at this location appear to be confined to the plow zone, suggesting depositional integrity and contextual clarity have been compromised. In other parts of the site artifact density is very low and artifact diversity low. For these reasons, the site is unlikely to possess information that will advance knowledge on the prehistoric settlement and use of the study region. Site 38LA758 is recommended ineligible for the NRHP under Criterion (d) and no additional archeological work is warranted.

6.2.29 Site 38LA759

Site 38LA759, is a light, non-diagnostic lithic scatter located on the edge of a broad upland flat along the southern edge of Tract L-East (Figures 6.2b and 6.42). Vegetation at the site is comprised of large hardwoods with a dense undergrowth of vines, grass, briars, river cane, and weedy shrubs. The closest water source is a low-order stream/wetland 30 m to the north. Site dimensions are approximately 45 by 30 m, southeast-northwest, as delineated by two positive and eight negative shovel tests. No exposed surfaces were available for inspection.

Soils are classified as Blanton Sand with shovel test profiles exposing 25 cm of dark grayish-brown loamy sand plow zone, over 40 to 60 cm of light yellowish-brown loamy sand. Substrate continues to at least 90 cmbs and consists of strong brown sandy clay loam. Artifacts were recovered between 30 and 60 cmbs. No cultural features or distinct archeological strata were noted.

Shovel testing produced debitage manufactured from opaque/white coarse-grained quartz (n=5), and rhyolite (n=2)] and includes one thinning flake, reduction flakes (n=2), and flake fragments (n=4) (Table 6.32).

Facing East

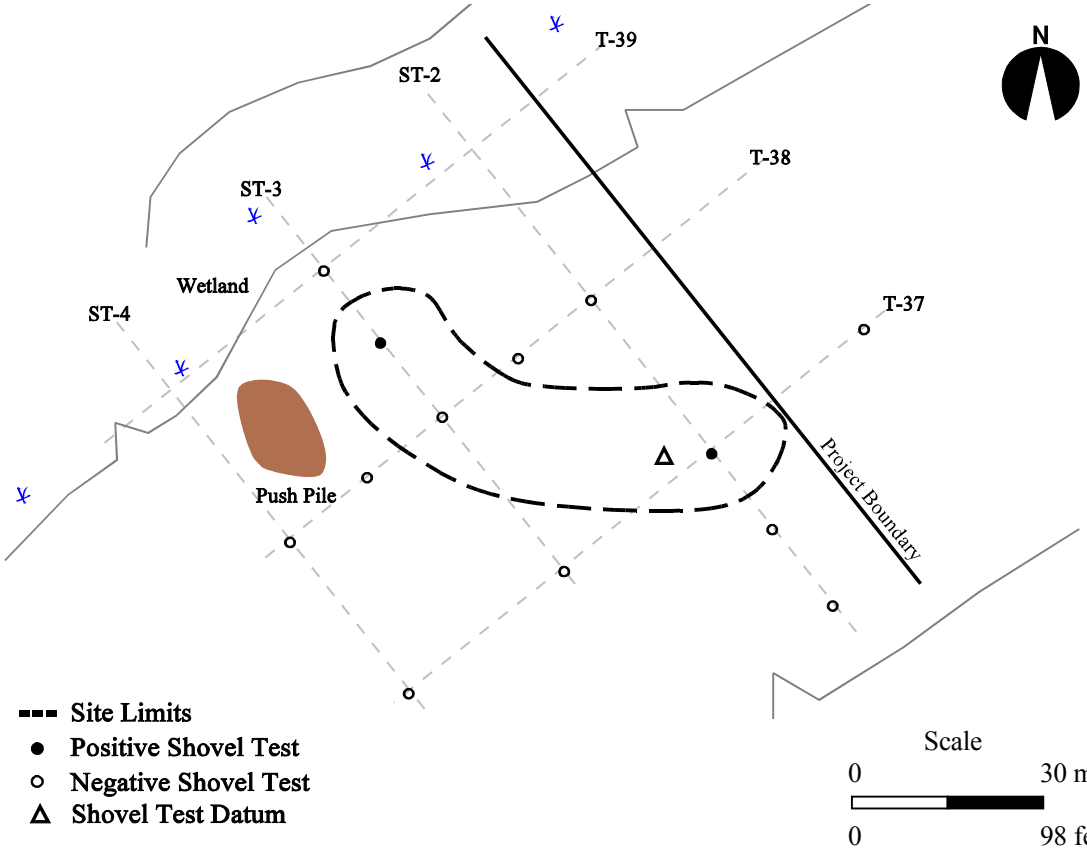


Figure 6.42 Site 38LA759, Photo and Sketch Map

These materials point to the occurrence of lithic reduction activity over a short period during some unknown prehistoric period.

Table 6.32 Site 38LA759 Artifact Inventory

Tract	L	L	
Transect/Shovel Test, Surface (S)	37/2	38.5/3	
Shovel Test Depth (cm)	90	60	
Artifact Depth (cm)	30-60	30-60	
Bag Number	324	326	**Total**
Lithic Reduction			
Thinning Flake, rhyolite	1		**1**
Reduction Flake, quartz		1	**1**
rhyolite	1		**1**
Flake Fragment, quartz		4	**4**
Total	**2**	**5**	**7**

Site 38LA759 has been disturbed by land-clearing activities, cultivation, and related soil erosion. Though sub-plow zone artifact bearing deposits were identified, these deposits exhibit relatively low artifact density and diversity, and no cultural features or distinct archeological strata were encountered. For these reasons, this site is unlikely to retain the depositional integrity or contextual clarity needed to address important research issues regarding the prehistoric settlement and use of the study region. Site 38LA759 is recommended ineligible for the NRHP under Criterion (d) and no additional work is considered necessary.

6.2.30 Site 38LA760

Site 38LA760 is a large lithic scatter that spreads across much of a prominent ridge in the northern half of Tract L-East. A dirt road skirts the eastern site boundary (Figures 6.2b, 6.43, and 6.44). Site vegetation is mixed; the center of the site, which was once used for cultivation, is now populated with isolated hardwoods and pine saplings, grass, and briars. Areas surrounding the clearing support a full canopy of mixed hardwoods. Multiple water sources are within 50 m of the site and include low-order, spring-fed streams/wetlands to the northwest and southeast, and the confluence of these streams to the southwest. The site is irregularly shaped and covers an area of approximately 495 by 145, northeast-southwest, as delineated by the excavation of 27 positive and 54 negative shovel tests. Though exposed surfaces were scattered across the site, no artifacts were observed.

Soils at the site consist of Blanton Sand and displayed a profile of 20 cm grayish-brown loamy sand, over 60 cm of yellowish-brown loamy sand. The substrate is a strong brown sandy loam. With two exceptions where cultural materials were taken at 80 to 100 cmbs, artifacts were recorded in deposits at 10 to 60 cmbs. No distinct cultural features or obvious archeological deposits were recorded.

Shovel testing yielded 140 lithics and one ceramic sherd (Table 6.33). The lithics were made from both clear/milky white and opaque/white, coarse-grained quartz (n=108), rhyolite (n=20), metavolcanics (n=9), and chert (n=3). Debitage includes thinning flakes (n= 14), reduction flakes (n= 24), flake fragments (n=98), and one piece of shatter. Other artifacts consist of a quartz core, quartz Woodland triangular PP/K fragments (n=2) (Figure 6.45), and one plain sand-tempered sherd. The larger of the two PP/K fragments may have been a knife that failed during manufacture, while the smaller fragment was a damaged projectile tip. The

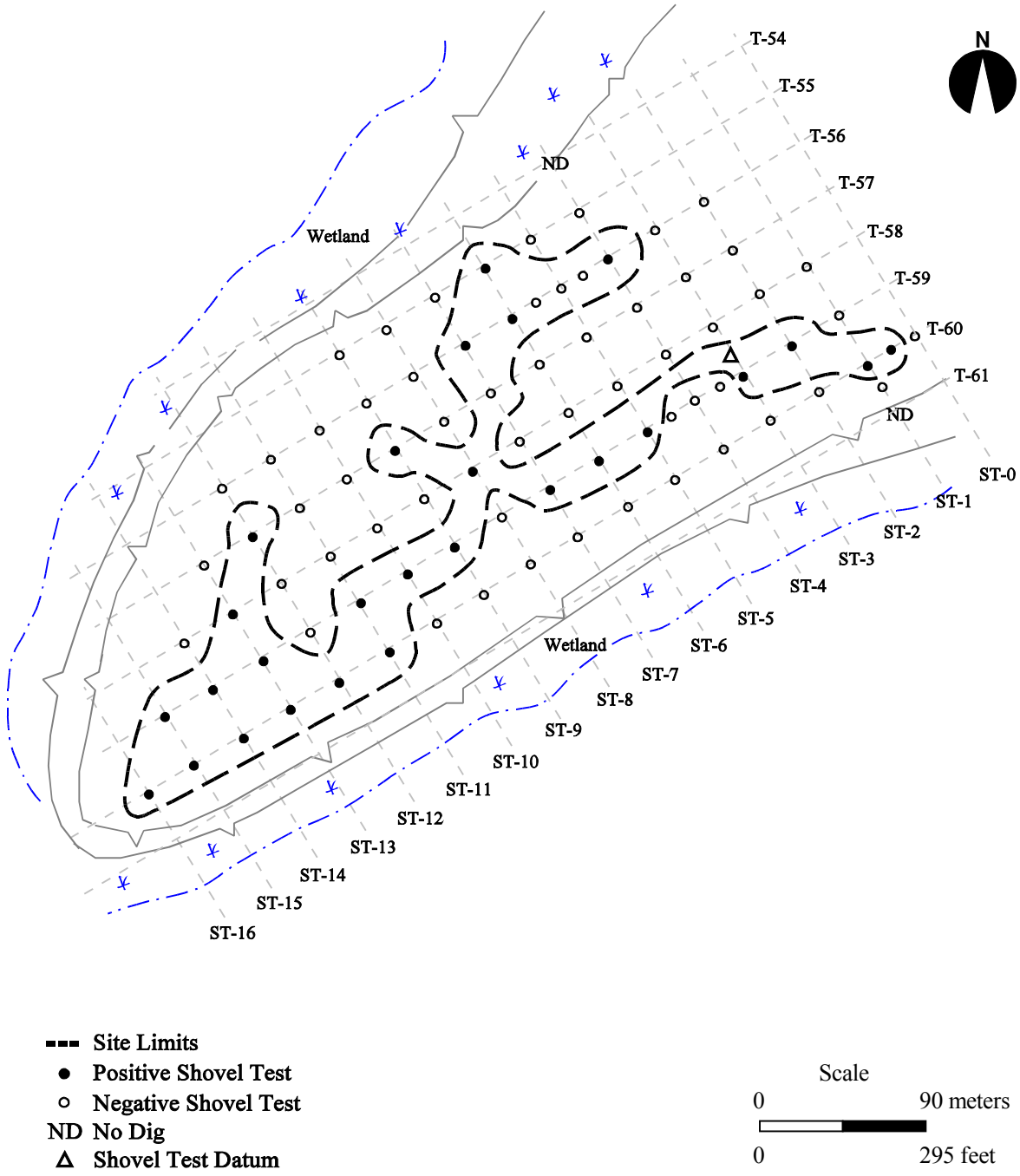


Figure 6.43 Site 38LA760, Sketch Map

Facing Northwest

Facing South

Figure 6.44 Selected Views of Site 38LA760

Table 6.33 Site 38LA760 Artifact Inventory

Tract	L	L	L	L	L	L	L	L	L	L	L	L	L	L
Transect/Shovel Test, Surface (S)	55/6	56/4	56/6	56/7	57/9	57/12	58/8	58/13	59/2	59/3	59/5	59/7	59/9	59/10
Shovel Test Depth (cm)	80	60	70	70	80	60	80	70	90	90	70	80	90	90
Artifact Depth (cm)	30-40	20-30	50-60	30-60	10-20	20-30	30-60	10-30	30-50	40-60	50-60	40-50	20-50	40-60
Bag Number	328	329	330	331	333	334	337	338	339	340	341	342	343	344
Lithic Reduction														
Thinning Flake, quartz														
rhyolite					1					1				
chert														
Reduction Flake, quartz													1	
rhyolite														
metavolcanic							3							1
Flake Fragment, quartz		2		2			2	3			1	1		
rhyolite									1					
chert														
metavolcanic	1		1				1							
Shatter, quartz														
Core/Biface Manufacture														
Core, quartz														
Formal Tools														
PP/K, quartz - Woodland triangular														
Cooking/Containment														
Ceramic, plain						1								
Total	**1**	**2**	**1**	**2**	**1**	**1**	**6**	**3**	**1**	**1**	**1**	**1**	**1**	**1**

Tract	L	L	L	L	L	L	L	L	L	L	L	L	L	
Transect/Shovel Test, Surface (S)	59/11	59/13	59/14	59/15	60/0.5	60/1	60/11	60/12	60/13	60/14	60/15	60/16	59/6	
Shovel Test Depth (cm)	90	90	110	90	90	50	70	70	70	60	70	70	80	
Artifact Depth (cm)	20-80	20-70	10-100	10-60	10-50	10-40	10-60	10-60	10-60	20-40	20-60	10-60	40-60	
Bag Number	345	346	347	348	349	350	351	352	353	354	355	356	375	**Total**
Lithic Reduction														
Thinning Flake, quartz			10								1			**11**
rhyolite														**2**
chert				1										**1**
Reduction Flake, quartz			8		1			2						**12**
rhyolite							1		4			1		**6**
metavolcanic				1									1	**6**
Flake Fragment, quartz	3	2	32	5		3		3	2	4		15	1	**81**
rhyolite				2			2		6			1		**12**
chert									2					**2**
metavolcanic														**3**
Shatter, quartz												1		**1**
Core/Biface Manufacture														
Core, quartz					1									**1**
Formal Tools														
PP/K, quartz - Woodland triangular			2											**2**
Cooking/Containment														
Ceramic, plain														**1**
Total	**3**	**2**	**52**	**9**	**2**	**3**	**3**	**5**	**14**	**4**	**1**	**18**	**2**	**141**

survey assemblage shows that lithic reduction, core/biface manufacture, biface thinning/repair, hunting/piercing/cutting, and limited ceramic-based cooking/containment activities occurred at 38LA760 during the Woodland period. This site may have been repeatedly visited by small Woodland period task groups or family units.

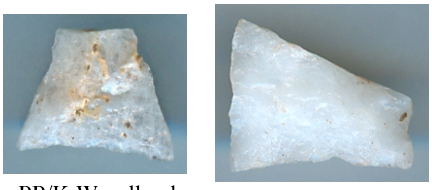


Figure 6.45 Site 38LA760, Selected Artifacts

Lithic reduction loci appear to have been sampled at three shovel test locations: T-59/14 (n=52); T-60/13 (n=14); and T-60/16 (n=18) (Table 6.33). In addition, both PP/K fragments were taken from T–59/14, suggesting the production and repair of Woodland bifacial tools. At T-59/14 and T-60/16, quartz was the focus of reduction; at T-60/13, rhyolite was the primary focus. Depths of deposits at these three locations [T-59/14 (10 to 100 cmbs); T-60/13 and T-60/16 (10 to 60 cmbs)] (as well as others) indicate that sub-plow zone archeological deposits are present at the site.

Site 38LA760 has been disturbed by land clearing, cultivation, and associated erosion; however, at least three moderate to high density activity loci with sub-plow zone components are known to be present. Diagnostic artifacts were recovered and point to Woodland period occupation. Based on the survey data, a NRHP eligibility recommendation for Site 38LA760 under Criterion (d) could not be formulated. Therefore, Phase II archaeological evaluation is recommended to establish if the site retains intact features, middens, subsistence remains, temporally sensitive artifacts/datable biotic materials, and/or other remains that are likely to significantly expand knowledge on Woodland settlement and/or use of the study region.

It is advised that Phase II evaluation include limited additional shovel testing in the vicinity of shovel tests T-59/14, T-60/13, and T-60/16 to further define the site, followed by limited structured test unit excavations.

6.2.31 Site 38LA761

Site 38LA761 is a small family cemetery on a broad ridge in the southwestern part of Tract N. The cemetery is located in a small island of hardwoods, approximately 15 m west of shovel test T-10/5 (Figures 6.2a and 6.46). Mobile home pads are located 20 to 25 m west and south on the cemetery, and an access road is about 10 m to the east; Ernest Scott Road is approximately 418 m to the west. Two graves were recorded during the field survey: one with local fieldstone head and foot markers, the other with only a local fieldstone head stone. No inscriptions were observed on these stones. The graves are generally oriented east-west, which is typical in rural historic Christian cemeteries. In addition, the cemetery and associated hardwoods sit on a slightly elevated pad, suggesting that the cemetery might have once been fenced and/or protected in some other way from surrounding cultivation and other ground disturbing activities. Based on the above surface features, 38LA761 covers an area of approximately 35 by 25 m northwest-southeast. It is important to stress

Facing West

Facing East

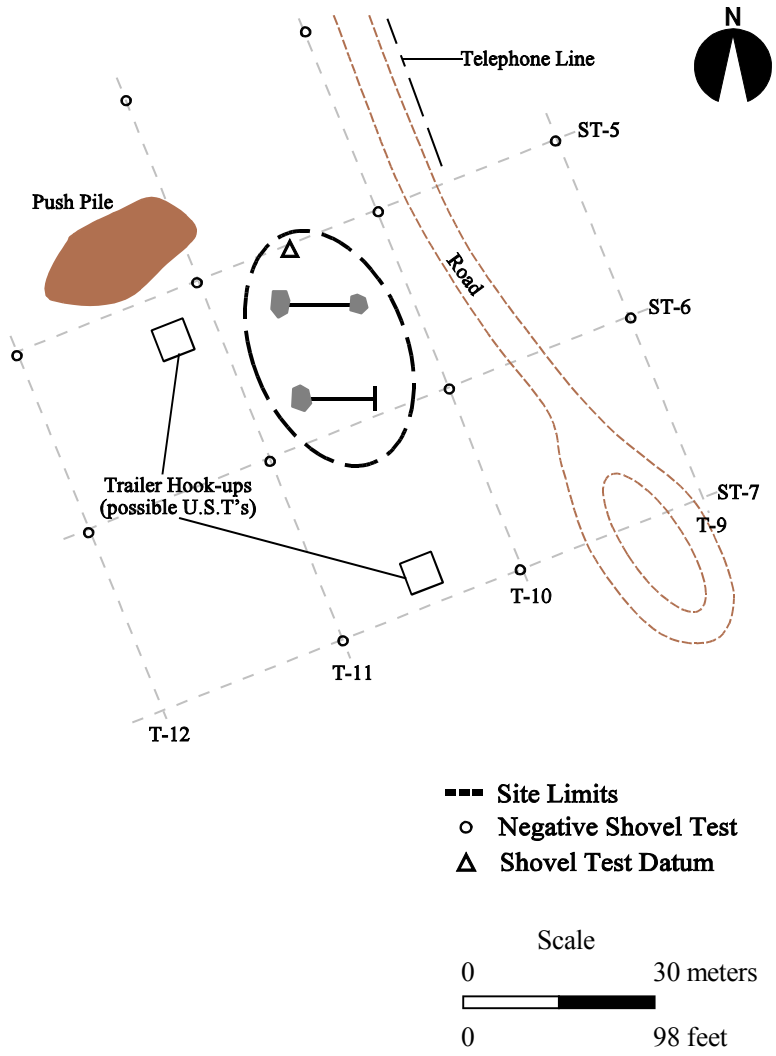


Figure 6.46 Site 38LA761, Photo and Sketch Map

that graves with no surface indications (e.g., stone markers, oval depressions, etc.) could be present within the cemetery or even immediately adjacent to the isolated hardwood stand.

No historic structures or house ruins were observed near the cemetery during the current survey. A brief search of the Lancaster County Tax Assessor records revealed that before Haile Gold Mine, Inc. purchased it in 2011, Ms. Mary Eloise Bartell owned the subject tract (Parcel No. 136-31.02); the adjacent parcel (No. 136-31.00) was owned by Jacob Wayne and Betty Bartell. These individuals may have information about the cemetery.

Site 38LA761 is recommended ineligible for the NRHP because it does not appear to have been important in local history, associated with prominent individuals, or to exemplify 19th to early 20th century mortuary practices. However, this property is protected under South Carolina law (South Carolina Code of Laws 16-17-590 and 16-17-600). Therefore, it is recommended that the cemetery be preserved and avoided, and a buffer zone of 10 m be added beyond to the estimated cemetery limits. If ground disturbing activities are planned within 100 m of the cemetery, it is recommended that a cemetery delineation survey be conducted to define the cemetery boundaries. After the delineation it is advised that the outer edge of the buffer zone be marked with highly visible temporary fencing. Archival research is also recommended in an attempt to determine the origin of the cemetery and to identify possible family members/descendants.

6.2.32 Site 38KE1158

Site 38KE1158 is a non-diagnostic, quartz lithic scatter on a gently sloping ridge spur in the central part of Tract L-West (Figures 6.2b and 6.47). The site is located in a clearing adjacent to a dirt road cut and lies adjacent to the property/boundary line that contains a recently clear-cut forest. The closest source of water is a low-order stream/wetland approximately 90 m northwest of the site. Site dimensions are approximately 135 by 30 m, southeast-northwest, as delineated by five positive and 22 negative tests. Though exposed surfaces were present, no artifacts were observed or collected.

Soils at the site are classified as Blanton Sand; profiles average 20 cm of grayish-brown sand plow zone over 40 to 70 cm of light yellowish-brown loamy sand. The substrate is a friable yellowish-brown sandy loam that extends to more than 90 cmbs in some areas. Artifacts were recorded at depths of 0 to 50 cmbs. No distinct cultural features or artifact-bearing strata were noted during shovel testing.

Seventeen lithic artifacts, made of opaque/white coarse grained quartz (n=16) and metavolcanic rock (n=1), were recovered during site shovel testing (Table 6.34). The survey sample consists of flake fragments (n=16) and a PP/K blade fragment (Figure 6.48). These materials reflect lithic reduction activities and tool manufacture/repair

PP/K Fragment
Quartz, T-16/5

Figure 6.48 Site 38KE1158, Selected Artifact

Facing West

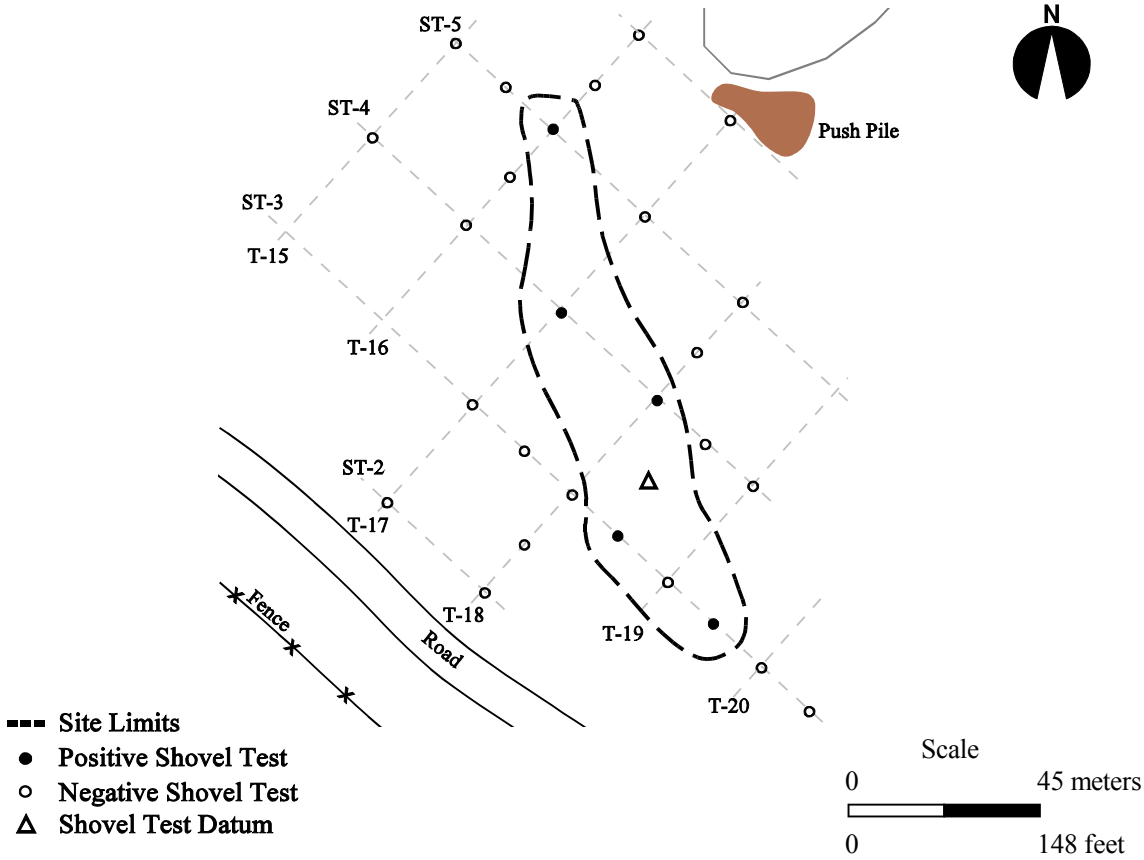


Figure 6.47 Site 38KE1158, Photo and Sketch Map

during an unknown prehistoric period. The majority (n=12) of the debitage was recovered from shovel test T-18.5/3 and likely indicates a quartz reduction locus. The PP/K fragment was taken from shovel test T-16/5 along the upper edge of the ridge spur.

Table 6.34 Site 38KE1158 Artifact Inventory

Tract	L	L	L	L	L	
Transect/Shovel Test	16/5	17/4	18/4	18.5/3	19.5/3	
Shovel Test Depth (cm)	80	60	90	60	60	
Artifact Depth (cm)	0-20	40-60	0-30	20-60	30-50	
Bag Number	310	311	313	322	323	**Total**
Lithic Reduction						
Flake Fragment, quartz		2		12	1	**15**
metavolcanic			1			**1**
Formal Tools						
PP/K, Fragment, quartz	1					**1**
Total	**1**	**2**	**1**	**12**	**1**	**17**

Site 38KE1158 has been disturbed by land clearing activities, cultivation, and related soil erosion. The presence of a small quartz reduction locus shows that this site may retain some degree of depositional integrity and contextual clarity. However, considerable intensive archeological work has been conducted at 10 lithic sites of similar nature on Haile Gold Mine property (Cable and Price 2009, 2010; Keith *et al.* 2011; Patch *et al.* 2011). Given the limited artifact diversity and overall low artifact density of this prehistoric occupation (compared to the 10 previously investigated sites), it appears unlikely that 38KE1158 retains prehistoric archeological information that has not already been well documented during previous archeological investigations. On this basis, the prehistoric component at 38KE1158 is viewed as ineligible for the NRHP under Criterion (d), and no additional archaeological investigation is advised.

6.2.33 Isolated Finds

Fifteen isolated artifact finds were recorded during the current survey (Table 6.35). These occurrences include 13 prehistoric locations and two historic locations. One prehistoric isolate, IF-1N, was discovered near previously recorded prehistoric site 38LA676 and may be related to it. Because of their isolated nature and the moderate to high level of disturbance at their locations, the 15 isolated finds are recommended ineligible for the NRHP under Criterion (d).

6.3 Historic Resources Survey and Viewshed Analysis

The viewshed around each of the 12 project tracts (A, B, D through J, L, N, and O) varies as illustrated in Figures 1.2a-d. Tract A is surrounded by mature mixed pine and hardwood forest with Camp Branch bisecting this parcel. The viewshed of Tract B consists of cleared areas with two modern modular homes and an abandoned modular home to the north. Tracts E, H, I, and J's viewsheds contained cleared, graded lots surrounded by mixed understory, mature pine/hardwood forests, and mid to late 20th century residences and buildings. However in Tract I and J, the previous structures had either been razed or relocated. In Tracts F and O, similar viewsheds were observed that consisted of graded lots with dense regenerative pines, mixed understory, logged areas, road traces, and for Tract O, mid to late 20th century commercial structures and outbuildings. Both Tract G and Tract N's viewsheds once contained structures, but both tracts exhibited mature hardwoods in between logged areas and regenerative pine forests.

Table 6.35 Isolated Finds Artifact Inventory

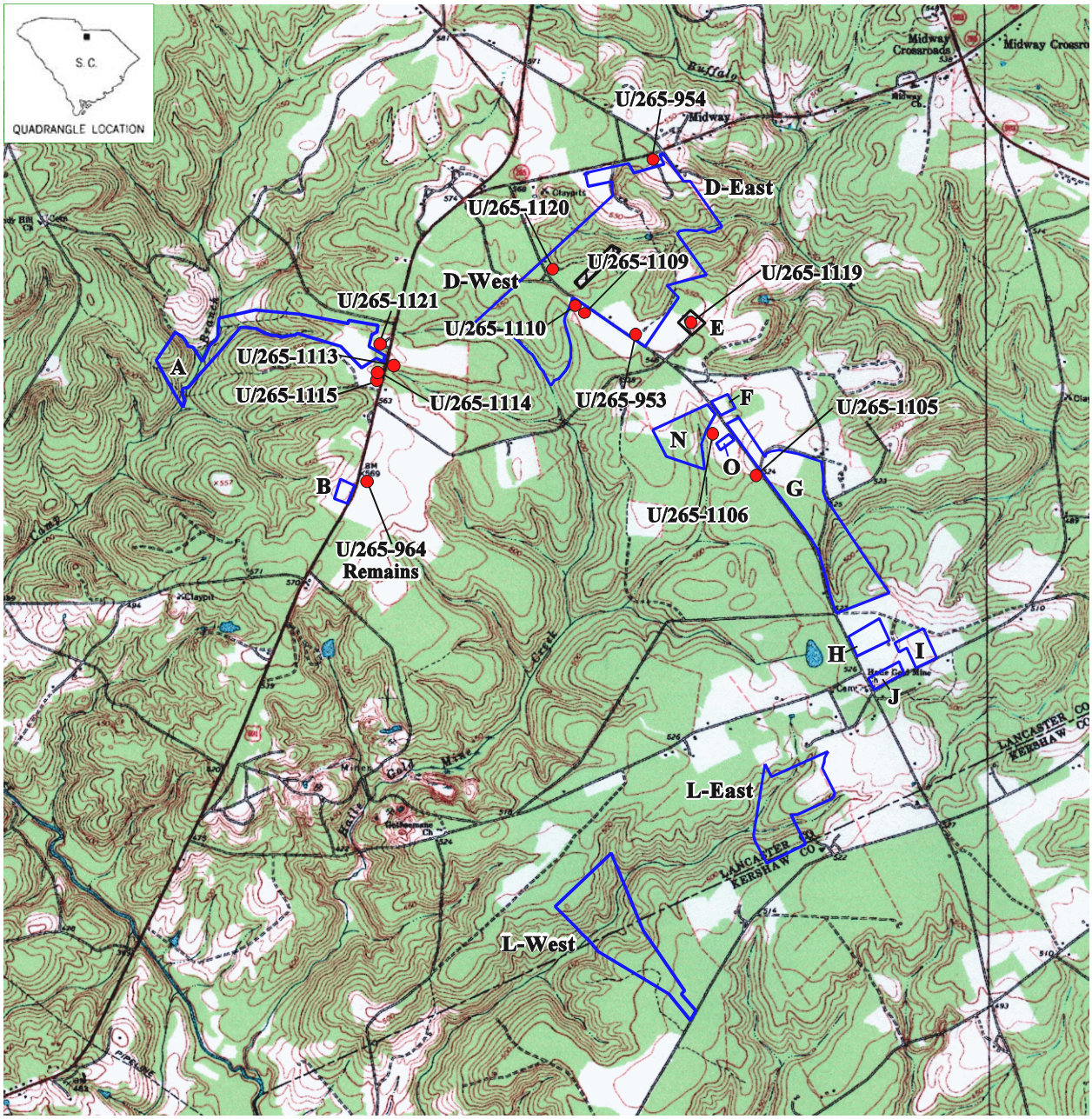
Tract	A	A	A	A	A	D	D	D	D	D	D	D	D	L	N	
Isolated Find Number	1A	2A	3A	4A	5A	1D	2D	3D	4D	5D	6D	7D	8D	1L	1N	
Transect/Shovel Test, Surface (S)	27/1	29/7	31/5	38.5/2	38/2	S	1/10	9/7	19/11	14/7	24/4	S	15/12	1/1	7/7	
Shovel Test Depth (cm)	25	25	50	25	25		100	80	80	100	25		80	100	80	
Artifact Depth (cm)	0-12	0-10	0-10	0-10	0-20		20-30	50-70	30-40	50-70	0-25		50-60	60-80	20-30	
Bag Number	122	123	124	125	116	199	214	225	262	254	276	261	257	284	373	**Total**
PREHISTORIC																
Lithic Reduction																
Thinning Flake, rhyolite													1			**1**
Reduction Flake, rhyolite														1		**1**
Flake Fragment, quartz		1			1	1				1					1	**5**
rhyolite	1		1					2	1	1						**6**
Core/Biface Manufacture																
Early Stage Biface, rhyolite												1				**1**
Cooking/Containment																
unknown eroded/decorated							1									**1**
Prehistoric Total	**1**	**1**	**1**		**1**	**1**	**1**	**2**	**1**	**2**		**1**	**1**	**1**	**1**	**15**
HISTORIC																
Kitchen/Subsistence																
Stoneware, salt glazed											1					**1**
Caldron, iron				1												**1**
Historic Total				**1**							**1**					**2**
GRAND TOTAL	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**2**	**1**	**2**	**1**	**1**	**1**	**1**	**1**	**17**

Tract D was divided into two Tracts, East and West, with Tract D-West's viewshed featuring a mobile home overlooking a large, level cultivated ridge encircled by wetlands to the north, south, and west. To the east, Ernest Scott Road and a mixed pine/hardwood forest formed Tract D-West's eastern boundary. Likewise, Tract D-East's western boundary was the same bisecting line, Ernest Scott Road. Along the western and northern boundaries of Tract D-East, modern modular homes were situated in between mixed pine/hardwoods and cleared, landscaped areas. Within Tract D-East, road traces, spring heads, and wetlands crisscrossed the undulating landscape in the center of the parcel. Along Tract D-East's eastern boundary, a vacant commercial chicken farming dominated the ridge. This parcel also featured two manmade ponds along the southeastern boundary of Tract D-East as well as a set of south-facing, descending, landscaped terraces.

Tract L was also divided into two tracts, east and west. Tract L-West's viewshed featured steep side slopes, cleared ridge tops, graded areas forming push piles, mixed understory, and mature pine/hardwood forests. An east-to-west running wetland cut the parcel in half and formed the northeastern and eastern boundary of Tract L-West. An abandoned late 20th century residence with six outbuildings was observed within the northern portion of Tract L-West, and there is a modern residential development adjacent to the southern boundary of the parcel. The remainder of the boundary is surrounded by mature woods and cultivated fields. Tract L-East's viewshed featured cleared areas that surrounded a large wetland and a mature hardwood forest that was located in the center of this parcel.

Based on the pedestrian survey of the Project Area and viewshed analysis, 10 previously recorded and three other historic structures were identified in the project APE (Figure 6.49). Previously recorded structures documented by Jackson (1986) include U/265-0953, U/265-0954, and U/265-0964. One of these resources, U-265-0953, was identified within Tract D-East, the other two are within the 100-m project APE. Seven historic resources recently recorded by New South Associates (Adams *et al.* 2011b) include U/265-1105, U/265-1106, U/265-1109, U/265-1110, U/265-1113, U/265-1114, and U/265-1115. None of these resources are within the boundaries of the project's tracts, but are within the 100-m APE. The previously recorded structures were revisited during the current RSWA survey, conditions assessed, and evaluated. These resources will be briefly discussed below with the exception of U/265-1114 and U/265-1115, which were revisited in November 2011and discussed for the RSWA's recent 145-acre Haile Gold Mine project (Gantt *et al.* 2012:88 and 89).

Of the three resources that were identified during the current survey, two are within the Project Area boundaries: U/265-1120 within Tract D-East and U/265-1119 within Tract E. The third newly recorded resource, U/265-1121, was observed within the APE but outside the parcel boundary of Tract A. Full descriptions of Resources U/265-1119, U/265-1120, and U/265-1121 follow the discussion of the previously recorded structures.



Map Reference: 7.5 Minute USGS Quadrangle
Kershaw, South Carolina (1969)

Scale
0 1067 meters
0 3500 feet

Figure 6.49 Location of Historic Resources Within the Project APE

6.3.1 Previously Recorded Historic Resources within the APE

Resource U/265-0953: Located within Tract D-East, this resource is approximately 245 m northwest of the intersection of Ernest Scott Road and Tolbert Road and surrounded by a dense stand of bamboo. The heavy vegetation inhibited full views of the facade and elevations. The one-story, Gabled-El, wood-frame residence, which features a wing extension and cross-hipped, "V" corrugated metal roof, was built c. 1915 (Figure 6.50). The structure is clad in weatherboard and rests on concrete block piers. The wing addition features wider plank weatherboard. The house has been abandoned and used for storage for several years. There are two outbuildings, a frame barn/large shed covered in corrugated metal and a collapsed frame privy (Figure 6.51). Jackson (1986) recorded the structure with its outbuildings and recommended it ineligible for the NRHP, citing deterioration. As the property has seen further deterioration and does not appear to be a good example of an architectural type, RSWA concurs with this recommendation.

Resource U/265-0954: Adjacent to the parcel boundary of Tract D-East and located at 7326 Old Jefferson Highway/SR 265, this white, one-story, Gabled-El, wood-frame residence features a tall, hipped asphalt-shingled roof with an intersecting gable roof on the south side of the house (Figure 6.52). The house is clad in vinyl siding and has an in-filled brick pier foundation. Built c. 1920, the residence is still in use. Shed-roofed additions have been attached to the core at the rear and north sides and do not appear to be historic. Jackson (1986) recorded the structure and recommended it ineligible for the NRHP. RSWA concurs with this recommendation.

Resource U/265-0964: This structure, recorded by Jackson (1986), was located northeast of Tract B, along the east side of Gold Mine Highway/U.S. 601, and across from the Kershaw Correctional Institution entrance. The house has been burned; the brick chimney and some of the brick foundation piers remain (Figure 6.53). While the resource may be considered an archeological site now, it is outside the current project boundaries and no further work is required at this time.

Resource U/265-1105: This resource is located northwest of Tract G at 4752 Ernest Scott Road. The one-story Compact Ranch House, c. 1961, features brick veneer, a shallow hip roof, and a brick masonry chimney on the north elevation (Figure 6.54-top). The property was recommended ineligible for the NRHP after applying Criteria A, B, C, and D (Adams *et al.* 2011b:175,178). RSWA concurs with this recommendation.

Resource U/265-1106: This resource is located south of Tract N and northwest of Tract O at 4658 Ernest Scott Road. The site consists of three outbuildings and the remnants of a 1950s residence (6.54-bottom). The site was recommended ineligible for the NRHP after applying Criteria A, B, C, and D (Adams *et al.* 2011b:178). RSWA concurs with this recommendation.

U/265-0953, Facade Side, Facing East

U/265-0953, Detail of Porch, Facing Northeast

Figure 6.50 Selected Views of Structure U/265-0953

U/265-0953.1 Barn/Large Shed Front, Facing Southwest

U/265-0953.2 Privy, Facing East

Figure 6.51 U/265-0953 Outbuildings

U/265-0954 Facade, Facing South

U/265-0954 Rear, Facing West

Figure 6.52 Selected Views of Structure U/265-0954

Burned Remains of Structure U/265-0964, Facing East

Figure 6.53 Selected View of Historic Resource U/265-0964

U/265-1105 Facade, Facing Southwest

U/265-1106 Outbuildings, Facing Southwest

Figure 6.54 Selected Views of Structures U/265-1105 and U/265-1106

Resource U/265-1109: This resource was located south of Tract D-West and west of Tract D-East at 4350 Ernest Scott Road. The structure recorded was an one-story Linear Ranch House, c. 1960, that featured red brick veneer, lateral gable roof, and a centrally located chimney on the roof ridge. The residence was recommended ineligible for the NRHP after applying Criteria A, B, C, and D (Adams *et al.* 2011b:182). It was observed during the current survey that the property is now a vacant lot; it appears that the house was moved to another location (Figure 6.55-top).

Resource U/265-1110: This resource was also located south of Tract D-West and east of Tract D-East at 4334 Ernest Scott Road. The one-story bungalow, c. 1945, featured white synthetic siding, a front gable roof, and a partially engaged porch with balusters. The residence was recommended ineligible for the NRHP after applying Criteria A, B, C, and D (Adams *et al.* 2011b:182). The current survey indicates that the property is now a vacant lot; it appears that the structure was moved to another location (Figure 6.55-bottom).

Resource U/265-1113: This resource is located east of Tract A at 4557 Gold Mine Highway/U.S. 601. The 1955, one-story house has an asymmetrical entry from an integrated porch on the north side of the facade. It meets no identifiable type or style (Figure 6.56). The house has a gable-on-hip roof, is clad in vinyl siding, and rests on a continuous brick foundation. The property was recommended ineligible for the NRHP after applying Criteria A, B, C, and D (Adams *et al.* 2011b:187,1188). RSWA concurs with this recommendation.

6.3.2 Newly Recorded Resources within the APE

Resource U/265-1119: Resource U/265-1119 is located within Tract E at 7474 Tolbert Lane, which lies east of Ernest Scott Road and is a continuation of Snowy Owl Road. The house is recorded on the Lancaster County Tax Parcel as 0136-00-019.00, a 3.77-acre property. The Lancaster County Tax Assessor record indicates that the house was built in 1959. However, it is mapped on the 1958 Lancaster County Highway Maps. The field data supports a late 1950s build date.

The house lies approximately 40 m east of Ernest Scott Road and is accessed by Tolbert Lane, which is a west-to-east dirt road. Scattered shade and pine trees line the driveway, but the house occupies a large, grassed clearing. Only a large maple and a pine tree are adjacent to the front of the house, while a mature oak is present in the rear. Small ornamental shrubs are planted along the frontage of the drive and in the back. Ground cover is sod around the house and then grass and briars outside of the 3.77 acre property.

The original plan of the house is a linear Ranch House design with a continuous red brick foundation (Figures 6.57 and 6.58). The red brick veneer house has a lateral gable roof covered in asphalt shingles. A small, central brick chimney is visible at the rear roof slope and occupies the east eave wall. An attached, enclosed side porch occupies the north elevation and includes original, paired 2/2 double-hung sash windows, a metal paneled door with partial glaze, and exterior wood-framed walls. The 2/2 double-hung windows

Vacant Lot at Former Location of U/265-1109, Facing South

Vacant Lot at Former Location of U/265-1110, Facing Southwest

Figure 6.55 Selected Views of Former Locations of Structures U/265-1109 and U/265-1110

U/265-1113, Facing Southeast

Figure 6.56 Selected View of Structure U/265-1113

U/265-1119 Facade, Facing East

U/265-1119 Side, Facing South

Figure 6.57 Selected Views of Historic Resource U/265-1119

U/265-1119 Side and Rear Oblique View, Facing Northeast

U/265-1119 Rear, Showing Carport

Figure 6.58 Selected Views of Historic Resource U/265-1119

match the house's single and paired 2/2 windows, therefore the enclosed porch with an extended gable roof was likely contemporary with the house's construction. A partially engaged, raised porch is centrally located on the facade and features an extended gable roof and a paneled door with partial glaze. There is a modern, detached carport north of the house.

One small frame shed and two cinder block outbuildings are located north of the property (6.59-top). The frame shed is an informal construction probably built around the time of the house. The Lancaster County Tax Assessor record also gives a date of 1970 for the parcel. This would appear to date the cinder block structures, one of which is a garage converted into a residence. The other outbuilding is a storage shed.

Resource U/265-1119 is recommended ineligible for the NRHP. It is not eligible under Criterion A since it is not a product of community planning and planned development of a significant period of settlement in the Haile Gold Mine vicinity during the period after World War II. Criterion B does not apply since there is no known association with the lives of a significant person or persons. The Tolbert family was the last known property owner before the parcel was purchased by Haile Gold Mine, Inc.. The house does not meet the standards under Criterion C as a good example of a residential type with distinctive characteristics of a period of development or construction methods. The structure does not represent the work of a notable architect, nor does it possess an identifiable academic style or high artistic or design value. Finally, the property is not considered eligible under Criterion D as a resource likely to yield important historic information.

Resource U/265-1120: Resource U/265-1120 is located within Tract D-East at 4270 Ernest Scott Road. The house is recorded on the Lancaster County Tax Parcel as 0119-00-063.00, a 14-acre property. The Lancaster County Tax Assessor record indicates that the house was built in 1920. It is mapped on both the 1939 and 1958 Lancaster County Highway Maps. The field data supports the county record's build date.

The house lies approximately 20 m east of Ernest Scott Road and is accessed by a west-to-east dirt road. Scattered shade and pine trees frame the house. It appears that small shrubs/trees were once planted along the south facade but have since been removed; six open square excavation pits 50-by-50 cm in size are located along the southern exterior. Ground cover is grass.

The structure is a hipped-roof duplex with an integrated front porch and an added shed-roofed back porch (Figures 6.59-bottom, 6.60, and 6.61). The one-story, frame building rests on brick piers and is clad in horizontal wood siding on the facade with newer, wide vertical wood siding along sections of the south, north, and rear elevations. The house is roofed in asphalt shingles and there is an interior brick chimney offset from the roof ridge. The roof originally featured a lightning rod that ran the length of the roof's ridge. After the roof was replaced, the lightning rod was placed back on top of the roof but left unattached.

U/265-1119 Outbuildings, Facing North

U/265-1120 Facade, Facing East

Figure 6.59 Selected Views of Historic Resources U/265-1119 and U/265-1120

U/265-1120 Side View, Facing North

U/265-1120 Rear, Facing North

Figure 6.60 Additional Selected Views of Historic Resource U/265-1120

U/265-1120 Side View, Facing South

U/265-1120 Front Porch Oblique, Facing Northwest

Figure 6.61 Additional Views of Historic Resource U/265-1120

The small back porch covers the asymmetrical entry on the west facade. The house appears to have had at least one side addition located off the rear of the east eave and features a porch extension. The added room and extension are evidenced by the difference in the framing and width of the siding between the original house and additions, as well as modifications and extensions to the roof line. The main entrance features two symmetrical paneled doors with partial glaze casement windows. The windows include original 6/6 double-hung wood sash along the east extension, but both the north and south elevations feature single 1/1 sash aluminum types, and the facade displays newer, single 6/6 aluminum sash, weather-proofed windows on either side of the two paneled doors.

Four small frame sheds are located in the back yard, three of which appear to date to the original construction of the house and are in various states of disrepair and collapse (Figure 6.62). These shed have vertical weatherboard and seamed metal roofs. The fourth structure is a plywood chicken coop that features 1/1 aluminum type windows.

Resource U/265-1120 is recommended ineligible for the NRHP. It is not eligible under Criterion A under agriculture. Although historically it may have been used as a farm house, there is no evidence of an identifiable agricultural landscape. Further, the extant outbuildings are not held in context with one another (i.e., the plywood chicken coop in association with the other three sheds). Criterion B does not apply; there is no known association with a significant person or persons. The Ray family was the last known property owner before the parcel was purchased by Haile Gold Mine, Inc.. The house does not meet the standards under Criterion C. Although the architecture type is similar to a pyramidal cottage, the duplex element, the additions, and material modifications have compromised the historical integrity of the building. Further, the structure does not represent the work of a master architect, nor is it a building type that is significant in the history of South Carolina residential architecture. The building type does not possess identifiable academic style or high artistic or design value. Finally, the property does not qualify under Criterion D as a resource likely to yield important historic information.

Resource U/265-1121: Resource U/265-1121 is located within the APE but outside of Tract A at 4526 Gold Mine Highway/U.S. 601. The house is recorded on the Lancaster County Tax Parcel as 0136-00-001.00, a 4.33-acre property. The Lancaster County Tax Assessor record indicates that the house was built in 1960. It does not appear on the 1958 Lancaster County Highway Map. The field observations support the county record's build date.

The house lies approximately 20 m west of Gold Mine Highway and is accessed by an encircling west-to-east dirt road. Scattered shade and pine trees frame the house with small ornamental shrubs and vines creeping upward along the east facade. Ground cover is grass.

U/265-1120 Three Outbuildings, Facing West

U/265-1120 Fourth Outbuilding, Facing East

Figure 6.62 Outbuildings at Historic Resource U/265-1120

The plan of the house is a simple, Minimal Traditional square cottage with a rear-projecting porch (Figure 6.63 and 6.64-top). It is a one-story, frame building with a continuous red brick foundation and is clad in painted, overlapping asbestos siding. The lateral gable roof has asphalt shingles and features a central brick chimney positioned on the roof ridge. A partially engaged, raised porch is centrally located on the east entrance and features an extended gable roof and paneled door. Windows include original, single and paired 2/2 double-hung sash along all facades but with one plate glass window flanked by side light windows on the north part of the facade. One small frame shed is located in the rear yard and appears to be a smoke house (Figure 6.64-bottom).

Resource U/265-1120 is recommended ineligible for the NRHP. Criterion A is not applicable, since it was not built as part of any cohesive or planned development. There is no known association with a significant person or persons, therefore Criterion B does not apply. The Hilton family was the last known property owner before the parcel was purchased by Haile Gold Mine, Inc.. The house does not meet the standards under Criterion C. Although the architecture style retains integrity as Minimal Traditional, it is not a distinctive example of the type. Further, the structure does not represent the work of a master, nor does it possess high artistic or design value. Finally, the property does not qualify under Criterion D as a resource likely to yield important historic information.

U/265-1121 Facade, Facing West

U/265-1121 Side and Rear Oblique, Facing Southeast

Figure 6.63 Selected Views of Structure U/265-1121

U/265-1121, Rear, Facing East

U/265-1121 Oblique View of Shed, Facing Northwest

Figure 6.64 Additional Views of Historic Resource U/265-1121

7.0 SUMMARY AND RECOMMENDATIONS

7.1 Summary

Survey of 553 acres at Haile Gold Mine resulted in the identification of 32 archeological sites (including one with two large loci treated as individual sites for site density), 15 isolated finds, and 13 historic resources (Tables 7.1 and 7.2). Archeological site density was high, with one site detected for every 16.7 acres surveyed. This compares well with earlier surveys on the Haile Gold Mine property that recorded high site densities: one site per 20 acres (Pluckhahn and Braley 1993); one site per 17 acres (Adams *et al.* 2011a); one site per 14 acres (Adams *et al.* 2011b) and one site per 9.7 acres (Gantt *et al.* 2012).

Table 7.1 Archeological Resources Within the Project Area

Archeological Sites*

State Site No.	Field Site No.	Type	Period	NRHP and Management Recommendations
38LA356*	L1	Lithic and Ceramic Scatter	Middle Woodland	Unassessed; Avoidance/Testing in select areas
38LA622/ 641*	A-1	Lithic and Ceramic Scatter; Historic Scatter	Middle to Late Woodland; Late 19th to Early 20th century	Unassessed; Avoidance/Testing in select areas
38LA663*	D-17	Lithic and Ceramic Scatter	Early Woodland	Ineligible; No Further Work
38LA666*	Locus 2	Lithic and Ceramic Scatter; Historic Scatter	Late Woodland to Protohistoric; 20th century	Unassessed; Avoidance/Testing in select areas
38LA666*	Locus 3	Lithic and Ceramic Scatter; Historic Scatter	Indeterminate Prehistoric; Late 19th to Mid 20th century	Unassessed; Avoidance/Testing in select areas
38LA735	D-1	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA736	D-3	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA737	D-4	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA738	D-5	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA739	D-6	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA740	D-7	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA741	D-8	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA742	D-10	Lithic and Ceramic Scatter	Early to Middle Woodland	Unassessed; Avoidance/Testing in select areas
38LA743	D-11	Lithic Scatter	Indeterminate Prehistoric	Unassessed; Avoidance/Testing in select areas
38LA744	D-12	Lithic Scatter	Indeterminate Prehistoric	Unassessed; Avoidance/Testing in select areas
38LA745	D-13	Lithic Scatter	Indeterminate Prehistoric	Unassessed; Avoidance/Testing in select areas
38LA746	D-14	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA747	D-15	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA748	D-16	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work

State Site No.	Field Site No.	Type	Period	NRHP and Management Recommendations
38LA749	D-18	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA750	D-19	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA751	D-20	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA752	D-21	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA753	D-22	Lithic and Ceramic Scatter	Woodland	Unassessed; Avoidance/Testing in select areas
38LA754	G-3	Lithic Scatter; Historic Scatter	Indeterminate Prehistoric; Late 19th to Mid-20th century	Ineligible; No Further Work
38LA755	L2	Lithic and Ceramic Scatter	Early-Middle Woodland	Unassessed; Avoidance/Testing in select areas
38LA756	L4	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA757	L5	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA758	L6	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA759	L7	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work
38LA760	L8	Lithic and Ceramic Scatter	Woodland	Unassessed; Avoidance/Testing in select areas
38LA7461	N1	Historic Cemetery/Family Plot	Middle-Late 19th to Early 20th century	Ineligible; Preservation & Avoidance; Boundary Delineation
38KE1158	L3	Lithic Scatter	Indeterminate Prehistoric	Ineligible; No Further Work

* Site types and periods reflect the findings of the current survey

Isolated Finds

IF#	Artifact	Period	NRHP Recommendation
1A	1 Flake Fragment, rhyolite	Indeterminate Prehistoric	Ineligible
2A	1 Flake Fragment, quartz	Indeterminate Prehistoric	Ineligible
3A	1 Flake Fragment, rhyolite	Indeterminate Prehistoric	Ineligible
4A	1 Caldron fragment, iron	19th/20th century	Ineligible
5A	1Flake Fragment, quartz	Indeterminate Prehistoric	Ineligible
1D	1 Flake Fragment, quartz	Indeterminate Prehistoric	Ineligible
2D	1 Unknown eroded ceramic	Woodland	Ineligible
3D	2 Flake Fragments, rhyolite	Indeterminate Prehistoric	Ineligible
4D	1 Flake Fragment, rhyolite	Indeterminate Prehistoric	Ineligible
5D	2 Flake Fragments, quartz and rhyolite	Indeterminate Prehistoric	Ineligible
6D	1 Stoneware, salt glazed;	19th/20th century	Ineligible
7D	1 Early Stage Biface, rhyolite	Indeterminate Prehistoric	Ineligible
8D	1 Thinning flake, rhyolite	Indeterminate Prehistoric	Ineligible
1L	1 Reduction Flake, rhyolite	Indeterminate Prehistoric	Ineligible
1N	1 Flake Fragment, quartz	Indeterminate Prehistoric	Ineligible

Table 7.2 Historic Resources within the Project APE

Resource Number	Address/Tract	Type	Date of Construction	NRHP and Management Recommendation
U/265-0953	800-ft NW of Ernest Scott Road & Tolbert Road/ Tract D-East	Residence	c. 1915	Ineligible; No further work
U/265-0954	7326 Old Jefferson Hwy, SR 265/ Tract D-East	Residence	c. 1920	Ineligible; No further work
U/265-0964	East side Gold Mine Hwy, U.S. Hwy 601/ 0.3 mi south of intersection of U.S. 601 & CR 1723/ Tract B	Residence	c. 1920	Ineligible; No further work
U/265-1105	4752 Ernest Scott Road/ Tract G	Residence	c. 1961	Ineligible; No further work
U/265-1106	4658 Ernest Scott Road/ Tract N and Tract O	Residence	c. 1950	Ineligible; No further work
U/265-1109	4350 Ernest Scott Road/ Tract D-East	Residence	c. 1960	Ineligible; No further work
U/265-1110	4334 Ernest Scott Road/ Tract D-West	Residence	c. 1945	Ineligible; No further work
U/265-1113	4557 U.S. 601/Tract A	Residence	1955	Ineligible; No further work
U/265-1114	4557 U.S. 601/Tract A	Residence	1955	Ineligible; No further work
U/265-1115	4557 U.S. 601/Tract A	Residence	1955	Ineligible; No further work
U/265-1119	7474 Tolbert Lane/ Tract E	Residence	c. 1959	Ineligible; No further work
U/265-1120	4270 Ernest Scott Road/ Tract D-East	Residence	c. 1920	Ineligible; No further work
U/265-1121	4526 Gold Mine Hwy/U.S. 601/ Tract A	Residence	c. 1960	Ineligible; No further work

Prehistoric Chronology and Use: A total of 45 archeological resources contained prehistoric components, and these include: indeterminate prehistoric (n=35); Early Woodland (n=1); Early to Middle Woodland (n=2); Middle Woodland (n=1); Middle to Late Woodland (n=1); Woodland (n=3); and Late Woodland to Protohistoric (n=1). Four of the prehistoric sites above are contiguous with resources previously recorded on adjacent tracts: 38LA356, 38LA663, and 38LA666; within Tract A, two previously recorded prehistoric sites, 38LA622 and 38LA641, were collapsed into one resource (38LA622/641) as a result of the current survey.

In terms of prehistoric use of the project tracts, the archeological record indicates that lithic reduction was by far the most common recognizable activity (as is often the case). Artifact density (and to some extent artifact diversity) at these locations varies considerably and represents the following: repeatedly used lithic extraction/reduction locations exploited by multiple groups over a long period of time; lithic reduction locations used by individuals or small task/family groups; and small task camps where lithic reduction, tool repair/replenishment, and limited group maintenance (i.e., collection/cooking activities) activities took place. The current study strongly suggests that the prehistoric groups using the project tracts did so in a temporary or transient manner. Such use may have been embedded into seasonal schedules/exploitation strategies, or through alliance, if groups were limited by territorial boundaries; or on an as-needed basis if these lithics were intra-territorial resources. Whatever the case, the current survey uncovered no evidence of moderate

to long term use of the study areas by prehistoric groups. This suggests that groups using these resources did not plan extended visits to lithic extraction sites, perhaps because of the overall abundance of high quality materials at numerous locations within the study region.

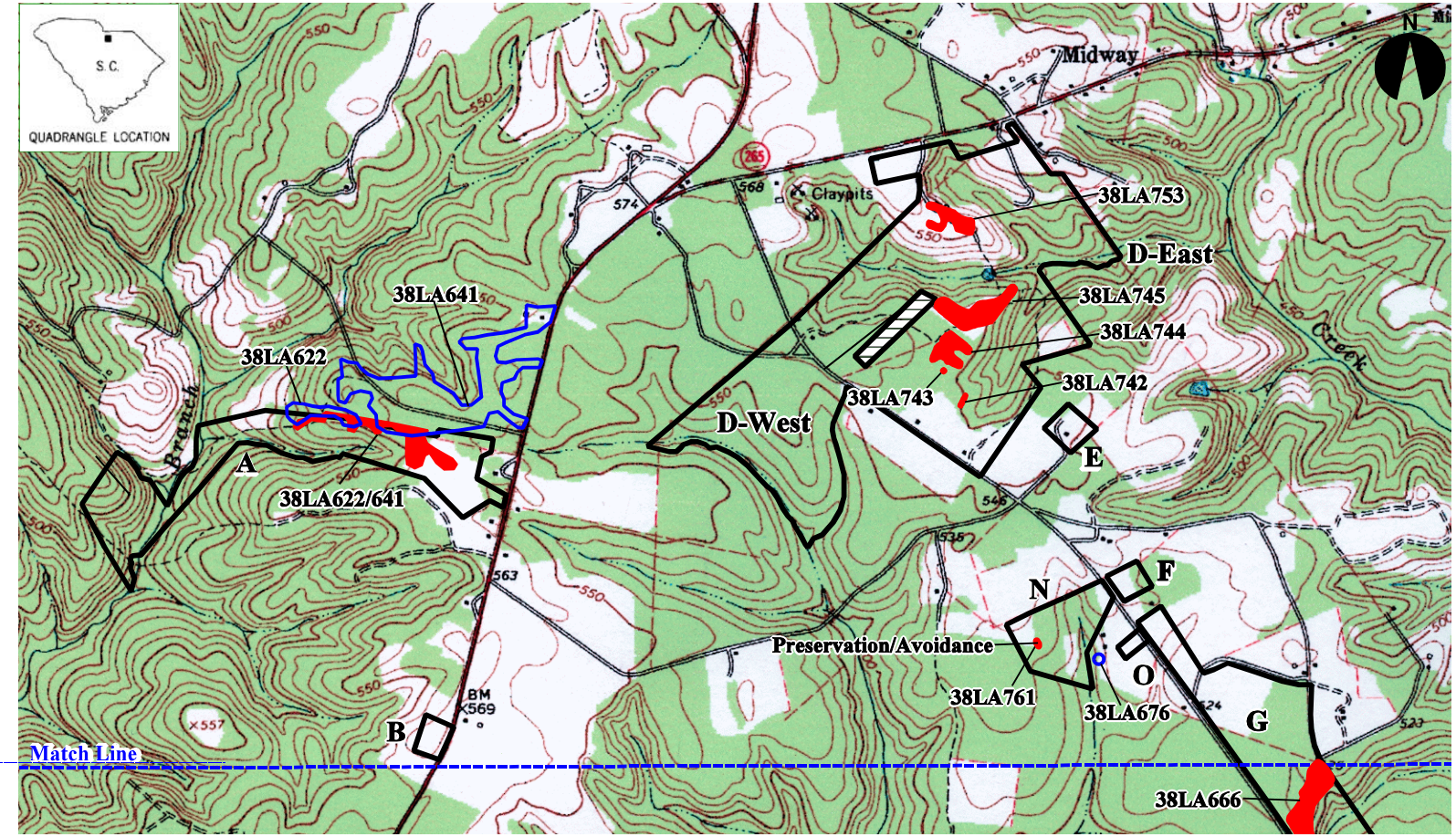
Historic Chronology and Use: Seven archeological resources contained historic components dating to the following: mid/late 19th to early 20th century (n=1); late 19th to early 20th century (n=1); 19th/20th century (n=2); late 19th to middle 20th century (n=2); and 20th century (n=1). Historic site types include a small family cemetery, house site scatters (n=4), a discard scatter, and isolated artifacts (n=2). Three of the house site scatters are located in Tract G; two of these are adjacent to Ernest Scott Road and associated with previously recorded site 38LA666. The discard scatter is located adjacent to a 20th century dirt road cut in Tract A and may be associated with the Clyburn farm site (38LA641). The two isolated artifacts may represent discard or the widely dispersed remains of house sites. The small family cemetery reflects common 19th to early 20th century burial practices of agrarian families in the rural south.

The historic resources survey identified 10 previously recorded and three other historic structures in the project APE (Table 7.2). Three of the previously recorded structures were documented by Jackson (1986) and 10 structures were recently recorded by New South Associates (Adams *et al.* 2011b). The 13 historic structures in the APE are all residences and represent a date range of c.1915 to c.1960.

7.2 NRHP Eligibility and Management Recommendations

Archeological Resources with an Unassessed NRHP Eligibility Status: Ten archeological sites 38LA356, 38LA622/641, 38LA666 (Loci 2 and 3), 38LA742, 38LA743, 38LA744, 38LA745, 38LA753, 38LA755, and 38LA760 are unassessed for NRHP eligibility under Criterion (d) in 36 CFR Part 60.4 (Figures 7.1a and b). These archeological sites will require Phase II evaluation to determine if they retain significant information about prehistoric lifeways in the zone between the lower Piedmont and Sandhills physiographic zones of South Carolina. It is recommended that the unassessed sites be tested under a standardized Phase II scope-of-work approved by the South Carolina SHPO. The scope of work recognizes and builds upon the previous archeological work at Haile Gold Mine including: four archeological surveys, Phase II evaluations at 10 prehistoric sites, and data recovery excavations at four prehistoric sites.

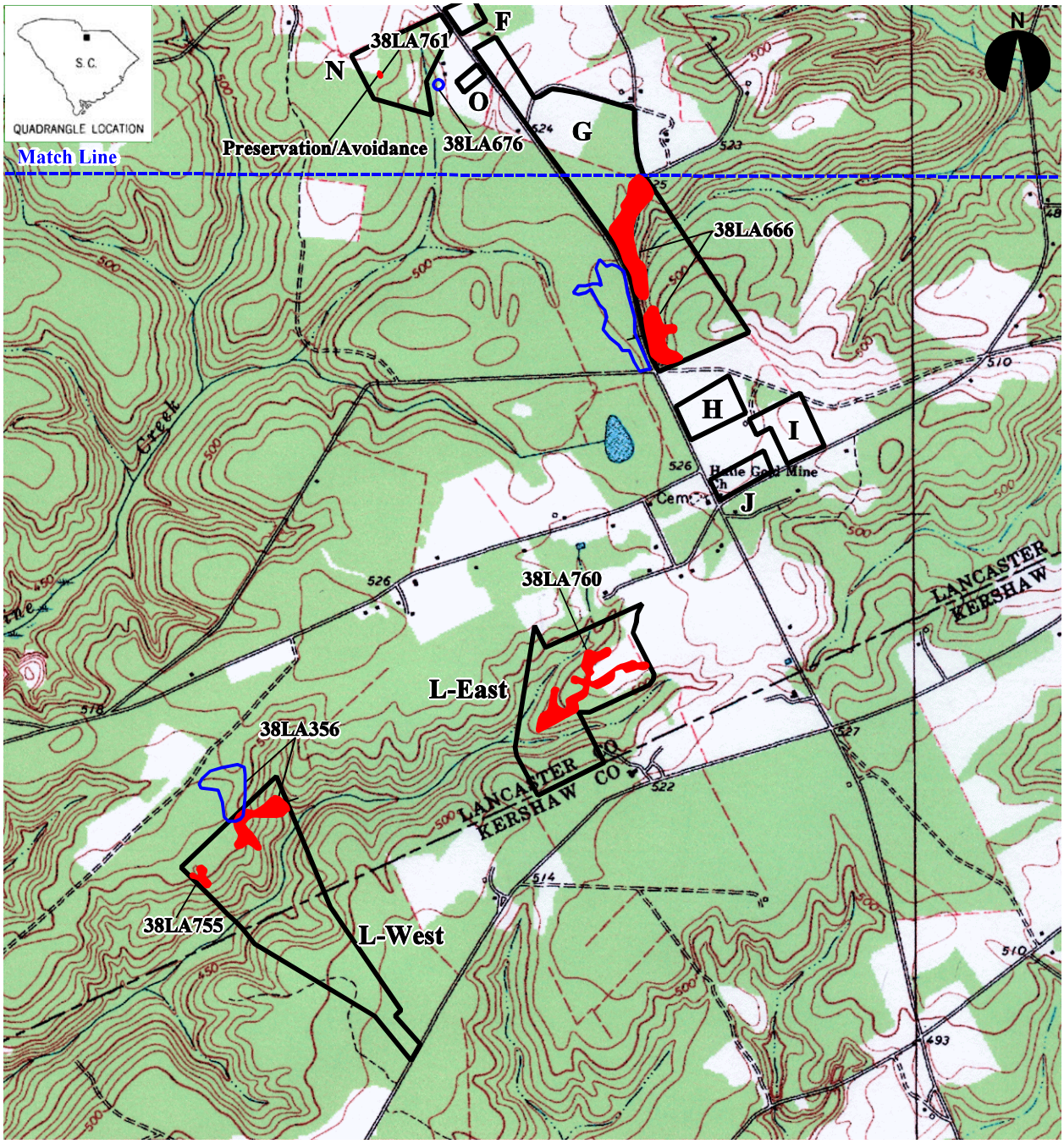
Historic Cemetery with an Ineligible NRHP Eligibility Status Protected under South Carolina Law: Site 38LA761, the small family cemetery, is ineligible for the NRHP, however, it is protected under South Carolina law (South Carolina Code of Laws 16-17-590 and 16-17-600). Preservation and avoidance are recommended. To accomplish this, it is advised that a 10 m buffer be established around the site. If ground disturbing activities are planned within 100 m of the cemetery, it is recommended that a cemetery delineation survey be conducted to clearly define the boundaries. After the delineation it is advised that the outer edge of the buffer zone be marked with highly visible temporary fencing and maintained until project-related



Map Reference: 7.5 Minute USGS Quadrangle
Kershaw, South Carolina (1969)

Scale
0 610 meters
0 2000 feet

Figure 7.1a Location of Unassessed Sites



Project Areas
Archeological Site
Previously Recorded Archeological Site

Map Reference: 7.5 Minute USGS Quadrangle
Kershaw, South Carolina (1969) and
Mount Pisgah (1967), South Carolina

Scale
0 610 meters
0 2000 feet

Figure 7.1b Locations of Unassessed Sites

activities are completed in the area. Archival research is also recommended in an attempt to determine the rigin of the cemetery and to identify possible family members/descendants.

Archeological Resources Recommended Ineligible for the NRHP: Applying NRHP eligibility criteria in 36 CFR Part 60.4, it is recommended that the following archeological sites be determined ineligible for the NRHP under Criterion (d): 38LA663, 38LA735, 38LA736, 38LA737, 38LA738, 38LA739, 38LA740, 38LA741, 38LA746, 38LA747, 38LA748, 38LA749, 38LA750, 38LA751, 38LA752, 38LA754, 38LA756, 38LA757 38LA758, 38LA759, and 38KE1158. It is further recommended that the 15 isolated finds be considered ineligible for the NRHP under Criterion (d). The justification for these recommendations is that the archeological deposits at these locations have suffered from severe historic disturbances and/or lack the depositional integrity/contextual clarity necessary to provide additional important archeological information. No further work is recommended for these locations.

Historic Resources Recommended Ineligible for the NRHP: Historic Resources U/265-0953,U/265- 0954, U/265-0964, U/265-1105, U/265-1106, U/265-1109, U/265-1110, U/265-1113, U/265-1114, U/265-1115 U/265-1119, U/265-1120, and U/265-1121 are recommended ineligible for the NRHP. These resources lack historic and architectural significance due to unidentifiable or common type and/or modifications that compromise massing and historic fabric. No further work is recommended for these locations.

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APPENDIX A - PRINCIPAL INVESTIGATOR'S RESUME

ROBERT S. WEBB

President
Senior Principal Archeologist

EDUCATION: M.A., Anthropology, University of Tennessee
B.A., Anthropology, University of Tennessee

PROFESSIONAL MEMBERSHIPS: Southeastern Archeological Conference, Georgia Council of Professional Archeologists, The Society for Georgia Archaeology, Society for American Archaeology, Tennessee Council for Professional Archaeology, Archaeological Society of South Carolina

CAREER SUMMARY

Mr. Webb has over 30 years of professional experience in cultural resource management studies. He is the president and principal archeologist of the firm. Mr. Webb has expertise in cultural resources identification, evaluation, data recovery and other areas of resource management. He is also a trained physical anthropologist and bio-statistician. Mr. Webb served as senior archeologist and cultural resources assessment department manager at Law Environmental, Inc. from 1990 through 1993. He owned a cultural resources management firm from 1985 until joining Law Environmental, Inc. in 1990. Mr. Webb established R.S. Webb & Associates in January 1994.

SELECTED PROJECTS

Unless otherwise noted, Mr. Webb served as principal investigator on the selected projects below.

Reservoir Projects

Cultural resources survey, Carroll County raw water supply reservoir, Carroll County, Georgia (748 acres)

Cultural resources survey, testing and data recovery, Walton County raw water supply reservoir system, Walton County, Georgia (1,600 acres)

Cultural resources survey, testing and data recovery, City of Canton raw water supply reservoir system, Cherokee County, Georgia (350 acres)

Cultural resources survey and testing, Tired Creek recreational reservoir, Grady County, Georgia (1,500 acres)

Cultural resources survey and testing, South Fulton County raw water supply reservoir system, Fulton County, Georgia (625 acres)

Cultural resources survey and testing, Richland Creek raw water supply reservoir, Paulding County, Georgia (500 acres)

Cultural resources reconnaissance surveys, Glades Reservoir alternatives analysis, Hall County, Georgia

Cultural resources survey, Lake Chastain water supply reservoir, Gilmer County, Georgia (40 acres)

Cultural resources survey, testing and data recovery, Blue Creek reservoir, White County, Georgia (100 acres)

Cultural resources reconnaissance surveys, Tallapoosa Basin, West Georgia Regional reservoir alternatives analysis, Haralson County, Georgia

Cultural resources survey, City of Newnan reservoir improvements, Coweta County, Georgia (160 acres)

Cultural resources survey and testing, Bear Creek raw water supply reservoir system, Newton County, Georgia (1,500 acres)

Cultural resources survey and testing, Henry County raw water supply reservoir system, Henry and Butts Counties, Georgia (1,650 acres)

Cultural resources survey, testing and data recovery, City of Griffin raw water supply reservoir system, Pike County, Georgia (450 acres)

Cultural resources survey, Henry County raw water supply reservoir system, Henry and Spalding Counties, Georgia (1,000 acres)

Cultural resources survey, testing and data recovery, Lake MacIntosh raw water supply reservoir system, Fayette and Coweta Counties, Georgia (650 acres)

Data recovery at nine prehistoric sites, Henry County raw water supply reservoir system, Henry and Spalding Counties, Georgia

Cultural resources survey, Horton Creek raw water reservoir and dam site, Fayette County, Georgia (800 acres)

Cultural resources survey, Town Creek raw water supply reservoir and dam site, Jones County, Georgia (750 acres)

Testing at a Historic Creek village and a late 19th/early 20th century cemetery, Town Creek raw water supply reservoir, Jones County, Georgia

Cultural resources survey and testing, Cornish Creek raw water supply reservoir and dam site, Newton County, Georgia (1,000 acres)

Data recovery at three prehistoric sites, Cornish Creek raw water reservoir and dam site, Newton County, Georgia

Cultural resources survey, testing, and data recovery, Yellow Creek raw water supply reservoir and dam site, Cherokee County, Georgia (330 acres)

Data recovery at an Archaic and Woodland period camp/quarry site, Pates Creek raw water supply reservoir, Henry County, Georgia

Cultural resources survey, Shoal Creek raw water supply reservoir and dam site, Clayton County, Georgia (450 acres)

Cultural resources survey, Ellijay-Gilmer raw water supply reservoir and dam site, Gilmer County, Georgia (300 acres)

Cultural resources survey, Hudson River raw water supply reservoir and dam site, Banks County, Georgia (570 acres)

Cultural resources survey, Rush Creek raw water supply reservoir and dam site, Meriwether County, Georgia (80 acres)

Cultural resources survey and testing, Hazel Creek raw water supply reservoir and dam site, Habersham County, Georgia (350 acres)

Cultural resources literature and records search, water supply reservoir alternatives study, Lamar County, Alabama

Airports

Cultural resources survey, selected airport site, Lumpkin County, Georgia (150 acres)

Cultural resources survey, selected airport site, Upson County, Georgia (220 acres)

Cultural resources survey and testing, Cartersville Airport strip extension project, Bartow County, Georgia (60 acres)

Cultural resources survey, Gwinnett County airport strip replacement project, Lawrenceville, Georgia (250 acres)

Cultural resources survey, Tom B. David Airport strip extension project, Calhoun, Georgia (110 acres)

Development Projects

Cultural resources survey and testing Wateree industrial development site, Richland County, South Carolina (300 acres)

Cultural resources survey and testing Burt Creek development site, Dawson County, Georgia (969 acres)

Cultural resources survey and testing Corinth development site, Coweta County, Georgia (800 acres)

Cultural resources survey and testing, Spring Tract development site, Spaulding County, Georgia (1,820 acres)

Cultural resources survey, testing, and data recovery, River Club development site, Gwinnett County, Georgia (750 acres)

Cultural resources survey, timber stands, Sumter National Forest, Oconee County, South Carolina (1,146 acres)

Cultural resources survey, testing, and data recovery, Rivermoore development site, Gwinnett County, Georgia (700 acres)

Cultural resources survey and testing, Cypress Harbour development site, Jasper County, South Carolina (90 acres)

Cultural resources survey, Perigrine Point development tract, Beaufort County, South Carolina (6 acres)

Phase II testing at 38BK1002, Crowfield Plantation, Berkeley County, South Carolina

Cultural resources survey and testing, Silver Creek development site, Forsyth County, Georgia (700 acres)

Cultural resources survey, Trenton industrial development site, Edgefield County, South Carolina (470 acres)

Cultural resources survey, Kingswood South development site, Fulton County, Georgia (83 acres)

Cultural resources survey, Matrix Parcel 15 development site, Greenville County, South Carolina (50 acres)

Cultural resources survey, Abbotts Bridge Road development site, Fulton County, Georgia (20 acres)

Cultural resources survey and testing, Lugoff industrial development site, Kershaw County, South Carolina (250 acres)

Archival research and archeological testing, St James Hotel renovation and expansion project, Selma, Alabama (Project Manager)

Cultural resources survey and evaluative testing, Harbor View development site, Cherokee County, Georgia (1,400 acres)

Evaluative testing at two historic house sites, Sugarloaf Farm, Gwinnett County, Georgia

Cultural resources survey and data recovery, Ballantyne golf course community, Mecklenburg County, North Carolina (750 acres)

Archival research, archeological monitoring and archeological data recovery, Atlanta Federal Center (Richs Department Store site), Atlanta, Georgia

Cultural resources survey, (confidential) golf course community, Beaufort County, South Carolina (90 acres)

Cultural resources survey and testing, I-20 mall site, Dekalb and Rockdale Counties, Georgia (1,250 acres)

Cultural resources survey, Columbia County community center, Columbia County, Georgia (50 acres)

Cultural resources survey, Columbia County public school site, Columbia County, Georgia (70 acres)

Cultural resources survey and testing, BMW automobile manufacturing plant site, Spartanburg County, South Carolina (1,500 acres)

Cultural resources reconnaissance surveys, alternative Mercedes-Benz automobile manufacturing plant sites, Alamance County, North Carolina and Berkeley County, South Carolina (2,500 acres)

Cultural resources reconnaissance survey, five Resolution Trust properties, Columbia, South Carolina (15 acres)

Cultural resources reconnaissance survey, American-Italian Pasta Company, Columbia, South Carolina (250 acres)

Cultural resources reconnaissance survey, Bona Allen development project, Buford, Georgia (320 acres)

Cultural resources survey, Union Camp facility, Prattville, Alabama (50 acres)

Cultural resources survey and testing, Technology Parkway development, Floyd County, Georgia (800 acres)

Cultural resources survey and testing, Publix Distribution Center development, Gwinnett County, Georgia (150 acres)

Cultural resources survey, International Paper Facility, Corinth, New York (50 acres)

Cultural resources literature/records review, industrial development site, Texas City, Texas

Cultural resources survey, Sawmill Place development site alternatives study, Columbus, Ohio

Cultural resources reconnaissance survey, Elbow Road development project, Chesapeake, Virginia (150 acres)

Cultural resources survey, Interrose industrial development site, Georgetown County, South Carolina (400 acres)

Cultural resources survey and testing, American Okenite industrial development site, Orangeburg County, South Carolina (250 acres)

Cultural resources survey and testing, Chapel Hill golf course, Douglas County, Georgia (150 acres)

Archeological testing at Crowfield Plantation for Westvaco Development Corporation, Summerville, South Carolina

Cultural resources survey and testing, Vereen Memorial Gardens, Horry County, South Carolina (120 acres)

Cultural resources survey, Tiger Creek stream channelization project, Fort Benning, Georgia (4 acres)

Cultural resources survey, Moccasin Creek lake site, Union County, Georgia (60 acres)

Cultural resources reconnaissance survey, Plantation Centre site, Bibb County, Georgia (90 acres)

Highways

Cultural resources survey, Annistown Road improvements corridor, Gwinnett County, Georgia

Evaluative testing at Site 9GW347, Annistown Road improvements corridor, Gwinnett County, Georgia

Data recovery at a prehistoric quartz quarry site and 19th century farmstead site, Ronald Reagan Parkway, Gwinnett County, Georgia

Cultural resources survey, Old Madison Pike road-widening project, Huntsville, Alabama

Cultural resources survey, Four Mile Post road-improvement project, Huntsville, Alabama

Cultural resources survey, Kentucky Highway 15 road-widening project, Hazard, Kentucky

Cultural resources literature and records search, Valdosta by-pass alternatives study, Valdosta, Georgia

Historic Cemetery Delineations and Relocations

Archival research, delineation, and relocation of the Hudson-Wood Cemetery, City of Atlanta, Georgia

Archival research, delineation, and relocation of the Harrison-Addington-Mallard Cemetery, Jackson County, Georgia

Delineation and relocation of the Martin Family Cemetery, Dekalb County, Georgia

Delineation and relocation of two historic cemeteries, Allendale County, South Carolina

Archival research and delineation of the Farmer Street Cemetery, Newnan, Georgia

Archival research and delineation of the Brooks Family Cemetery, Pickens County, Georgia

Archival research and delineation of the Alexander Family Cemetery, Mecklenburg County, North Carolina

Archival research and delineation at Bethel Baptist Church Cemetery, Cobb County, Georgia

Archival research and delineation of an abandoned cemetery, Anderson County, South Carolina

Archival research and delineation of the Franklin-Hamilton Cemetery, Cobb County, Georgia

Archival research and delineation of the Strickland Cemetery, Forsyth County, Georgia

Archival research and delineation of the Hiram Road Cemetery, Cobb County, Georgia

Archival research and delineation of the Harmony Cemetery, Gwinnett County, Georgia

Archival research and delineation of Thompson Cemetery, Fulton County, Georgia

Archival research and delineation of the McCurdy-Rawlins-Boring Cemetery, Gwinnett County, Georgia

Archival research and delineation of the Barham Cemetery, Henry County, Georgia

Archival research and delineation of the Adams-Adkins Cemetery, Henry County, Georgia

Archival research and delineation of the Woodward-Puch Cemetery, Henry County, Georgia

Archival research and delineation of the Grice Cemetery, Henry County, Georgia

Archival research and delineation of an abandoned 19th century cemetery, Madison County, Alabama

Archival research and delineation of a late 18th century cemetery, Spartanburg, South Carolina

Archival research and delineation of the Lost Mountain Baptist Church Cemetery, Cobb County, Georgia

Archival research and delineation of the Shiloh Church Cemetery, Cobb County, Georgia

Archival research and delineation of the Turner-Sewell Cemetery, Cobb County, Georgia

Archival research and delineation of the Matthew Strickland Gravesite, Gwinnett County, Georgia

Archival research and delineation of the Morris Cemetery and Sarah Webb Gravesite, Fulton County, Georgia

Archival research and delineation of the Moon Cemetery, Cobb County, Georgia

Archival research, delineation and relocation of the Miles Cemetery, Jackson County, Florida

Archival research, delineation and relocation of two 19th century cemeteries, Spartanburg County, South Carolina.

Archival research, delineation and relocation of the Freshwater Resort Cemetery, Calhoun Falls, South Carolina

Archival research, delineation and relocation of the Harris and McClure Cemeteries, Cabarrus County, North Carolina

Archival research, delineation and relocation of the Smithfield Cemetery, Cabarrus County, North Carolina

Archival research, delineation and relocation of the Rock Creek Cemetery, Guilford County, North Carolina

National Priority List Hazardous Waste Sites

Cultural resources survey (Phase Ia), Fort Dix sanitary landfill site, Fort Dix, New Jersey, (126 acres)

Cultural resources survey (Phase 2b), Fort Dix sanitary landfill site, Fort Dix, New Jersey, (1 acre)

Cultural resources literature review, dry cleaning facility, Fort Riley, Kansas

Cultural resources literature and records search, selected sites, Griffiss Air Force Base, New York

Radioactive Waste Facilities (Proposed Locations)

Cultural resources survey and testing, proposed North Carolina Low-Level Radioactive waste disposal facility site, Wake and Chatham Counties, North Carolina (850 acres)

Cultural resources survey and testing, proposed North Carolina Low-Level Radioactive waste disposal facility site, Richmond County, North Carolina (2,000 acres)

State of Georgia

Cultural resources survey and testing, Richard B. Russell State Park golf course, Elbert County, Georgia (430 acres)

Cultural resources survey, Gordonia State Park golf course, Tattnall County, Georgia (90 acres)

Various public outreach site visits for the Georgia Council of American Indian Concerns

More than 20 cultural resources surveys conducted for State agencies under the Georgia Environmental Policy Act

Solid Waste Landfill Sites

Data recovery, solid waste landfill site, Banks County, Georgia

Cultural resources survey, solid waste landfill site, Catawba County, North Carolina (350 acres)

Cultural resources survey, two solid waste landfill sites, Chickasaw County, Mississippi (700 acres)

Cultural resources survey, Superior Sanitation solid waste landfill site, Chatham County, Georgia (742 acres)

Cultural resources survey, BFI regional solid waste landfill site, Lawrence County, Alabama (500 acres)

Cultural resources reconnaissance survey, proposed solid waste landfill site, Forsyth County, Georgia (650 acres)

Cultural resources survey and testing, solid waste landfill site, Dekalb County, Georgia (150 acres)

Data recovery at a soapstone quarry site, solid waste landfill site, Dekalb County, Georgia

Cultural resources survey and testing, solid waste landfill site, Spartanburg County, South Carolina (90 acres)

Cultural resources survey, solid waste landfill site, Florence County, South Carolina (600 acres)

Cultural resources survey, solid waste landfill site, Louisville, Kentucky (300 acres)

Cultural resources survey, solid waste landfill site, Mt. Pleasant, Tennessee (15 acres)

Cultural resources survey, solid waste landfill site, Blount County, Tennessee (50 acres)

Cultural resources survey, solid waste landfill site, Johnson City, Tennessee (20 acres)

Cultural resources survey, solid waste landfill site, Jackson County, Florida (2 acres)

Cultural resources survey, solid waste landfill site, Jasper County, South Carolina (250 acres)

Cultural resources survey, solid waste landfill site, Harris County, Texas (500 acres)

U.S. Army Corps of Engineers Waterways

Testing of two prehistoric sites, Tennessee-Tombigbee Waterway, Monroe County, Mississippi

U.S. Forest Service Timber Sale Areas

Cultural resources survey, Chattahoochee National Forest, Georgia (990 acres)

Five cultural resources surveys, Nantahala National Forest, North Carolina (1,667 acres)

Cultural resources survey, Pisgah National Forest, North Carolina (349 acres)

Six cultural resources surveys, Oconee National Forest, Georgia (18,268 acres)

Utilities Projects

Cultural resources survey, proposed Old Atlanta Road transmission line, Oglethorpe Power Corporation, Forsyth County, Georgia

Evaluative testing at Site 9FO218, proposed Old Atlanta Road transmission line, Oglethorpe Power Corporation, Forsyth County, Georgia

More than 20 other cultural resources survey and testing projects, transmission line corridors and substation sites across Georgia, Oglethorpe Power Corporation, Decatur, Georgia

Cultural resources survey and evaluative testing, sewer line extensions, Davidson County, Tennessee

Cultural resources survey, water treatment plant site and water intake corridor, Banks County, Georgia

Cultural resources survey (Phase Ia), proposed Mohawk Power Corporation gas pipeline, Jefferson County, New York

Cultural resources reconnaissance survey, transmission line alternatives study, Curles Neck, Virginia

Cultural resources literature and records search, U.S. Generating Company power facilities alternatives study, various sites across Georgia

Cultural resources survey and testing, Butler Creek sewer line, Richmond County, Georgia

Cultural resources survey, realignment monitoring, in-place preservation planning, public meeting, agency presentation and evaluation of impacts to the Augusta Canal National Historic Landmark and a prehistoric shell midden site, Richmond water line and intake, Richmond and Columbia Counties, Georgia

Cultural resources survey, Proctor Creek MARTA rail line, Atlanta, Georgia

Evaluative testing of a 19th century landfill, Proctor Creek MARTA station, Atlanta, Georgia

Cultural resources survey, north, east and west MARTA rail extensions, Atlanta, Georgia

Cultural resources survey, East Point MARTA rail line, Atlanta, Georgia

Cultural resources survey and testing, Brookhaven MARTA rail line and station, Atlanta, Georgia

Data recovery at historic Johnsontown, Lennox Square MARTA station, Atlanta, Georgia

Cultural resources survey, gas pipeline, Big Thicket, Texas (field director)

Cultural resources survey, gas pipeline, Calcasieu Parrish, Louisiana (field director)

Cultural resources survey, Wildwood Park water line and water treatment site, Columbia County, Georgia

Cultural resources surveys, Phases I and II, sewer line improvements, Commerce, Georgia

Cultural resources survey, water system improvements, Senoia, Georgia

Cultural resources survey, sewer and water system improvements, Tallapoosa, Georgia

FCC Checklist Studies (Cultural Resources)

Literature review and field survey of over 4,000 communication tower sites in Georgia, North Carolina, South Carolina, Tennessee, Alabama, Florida and Virginia

Wastewater Treatment Projects

Cultural resources reconnaissance survey, land application site, Spalding County, Georgia (750 acres)

Cultural resources survey and testing, Piedmont Park and White Park CSO projects, Atlanta, Georgia

Cultural resources survey, land application site, Turner County, Georgia (264 acres)

Cultural resources survey, land application site, Rochelle, Georgia (10 acres)

Cultural resources survey, land application site, Blackshear, Georgia (90 acres)